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MESCALERO SANDS
ARCHAEOLOGICAL RESOURCE INVENTORY
SECOND SEASON
PROJECT NUMBER YA-510-PH6-94

Patrick H. Beckett

A REPORT PREPARED FOR THE BUREAU OF LAND MANAGEMENT under the direction of Dr. Stanley D. Bussey of the Cultural Resources Management Division, Department of Sociology and Anthropology, New Mexico State University, Las Cruces, New Mexico.

August 1976

Report No. 45

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ABSTRACT

The Cultural Resources Management Division of the Department of Sociology and Anthropology, New Mexico State University conducted an archaeological inventory in the Mescalero Sands for the Bureau of Land Management, Roswell District. The survey covered one Section of "Intensive Survey" and six Sections of "Extensive Survey"; a total of 16 sites were encountered and recorded.

ACKNOWLEDGEMENTS

The Second Mescalero Sands Archaeological Resource Inventory conducted by New Mexico State University would not have been possible without the cooperation of a number of individuals and organizations. The Cultural Resources Management Division, Department of Sociology and Anthropology, New Mexico State University, wishes to thank these individuals and organizations for their cooperation.

The Second Mescalero Sands Archaeological Resource Inventory was originated by Mr. Malcolm Charlton, Acting Roswell District Manager, Department of the Interior, Bureau of Land Management. The Contracting Officer's Authorized Representative (COAR) was Charles B. Godfrey, Outdoor Recreation Planner, Roswell District Office, who has extended invaluable advice and help.

The Museum of New Mexico has provided available information on various sites. Stewart Peckham and Dedie Snow in particular have been helpful to our many requests.

Mr. Tom Merlan, State Historic Preservation Officer, has been extremely helpful in providing information on state guidelines and previous projects conducted in the area.

Thanks go to Dr. J. D. Jennings for his comments to the author on southern New Mexico and their brown wares, during the 1975 Lubbock Meeting on early man.

Mr. John Runyan, Lea County Archaeological Society, has extended personal observations and opinions on the archaeology of the area. His help has been greatly appreciated.

Major Jack Ross, Chaves County Archaeological Society, has provided the author with representative sherds from the Roswell area.

Mr. Robert H. Leslie, Lea County Archaeological Society, has provided the author with personal observations on the archaeology of southeastern New Mexico. His help has been greatly appreciated.

Dr. Harris, University of Texas at El Paso, provided the identification of the Mastodon Calcaneum, from site MS-C-9.

Mr. Douglas P. Brethauer, New Mexico State University, drew the overall map of Mescalero Sands.

Dr. William A. Dick-Peddie, New Mexico State University, has extended personal observations and opinions of the flora within the Mescalero Sands. His help has been greatly appreciated.

Susan M. Strong, New Mexico State University, spent many hours proofing and typing up forms for the project, her help has been greatly appreciated.

As with all projects or offices, no work at all would get done without the help of their secretarial staff. The following have so graciously given their efforts when called upon: Charlotte C. Chavez, Evangeline C. Andrews and Norma I. Silva.

Last but not least, the author wishes to thank the following individuals for their endurance in walking the Mescalero Sands in the midsummer heat: Floyd M. (Twister) Geery, Assistant Archaeologist; David S. Hill; Pamela R. Martin; Judith A. Southward; and Scott M. Staley. This survey could not have been accomplished without their hard work and dedication to the project.

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INTRODUCTION

From June 9, 1976 through June 14, 1976, Floyd M. (Twister) Geery, David V. Hill, Pamela R. Martin, Judith A. Southward and Scott Mcclain Staley, under the field supervision of Patrick H. Beckett of the Cultural Resources Management Division, Department of Sociology and Anthropology, New Mexico State University, conducted an archaeological resource inventory in the Mescalero Sands for the Roswell District Office of the Bureau of Land Management. The project was under the direction of Dr. Stanley D. Bussey.

Work was carried out by contract between the Bureau of Land Management, United States Department of the Interior and the Regents of New Mexico State University under Order Number YA-510-PH6-94.

The portion of the Mescalero Sands surveyed lies approximately 35 miles east of Roswell, New Mexico and from 9 to 14 miles south of U.S. Highway 380. The Mescalero Sands are located just west of the western edge of the Llano Estacado (Caprock).

The survey lies just south of another area of the Mescalero Sands that had been intensively surveyed the previous year by New Mexico State University for the Bureau of Land Management (see Mescalero Sands Archaeological Resource Inventory, Beckett 1975).

The boundaries of the survey were not flagged. The survey crew used USGS Advance Print Topo maps and air photos of the survey area, and by the use of compass bearings and horizon markers were able to plot the survey locations.

There are probably other sites in the surveyed areas. Because of the heavy aeolian activity and the nature of the local soils, shifting sand dunes are constantly covering and uncovering archaeological sites in the area.

Artifact analysis was performed in the field by the field supervisor. No collections were made except for projectile points, as specified in the contract. Copies of the site survey forms will be filed with the Bureau of Land Management, Roswell District and the Museum of New Mexico. In addition, a complete file will be maintained at the New Mexico State University Museum.

LOCATIONS OF THE SURVEY AREAS

Intensive Survey

Township 12 South, Range 30 East, Section 13: E½, NMPM

Township 12 South, Range 31 East, Section 18: W½, NMPM.

Aggregating approximately 640 acres.

Extensive Survey

Township 12 South, Range 30 East, Section 24: SW¼NE¼, S½NW¼, SW¼, W½SE¼, and Section 25: W½E½, W½.

Township 12 South, Range 31 East, Section 31, Section 19: SW¼NE¼, S½NW¼, SW¼, W½SE¼ and Section 30: W½NE¼, NW¼, N½SW¼, NW¼SE¼.

Township 13 South, Range 30 East, Section 1.

Township 13 South, Range 31 East, Section 6.

Aggregating approximately 3,360 acres.

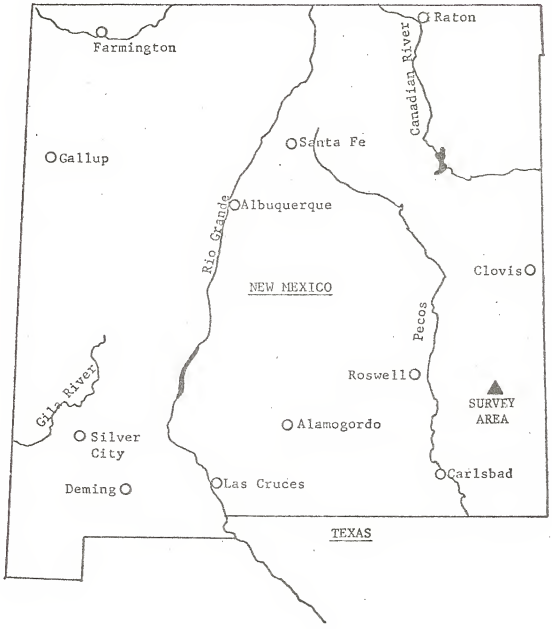


Figure 1. Mescalero Sands Survey Area

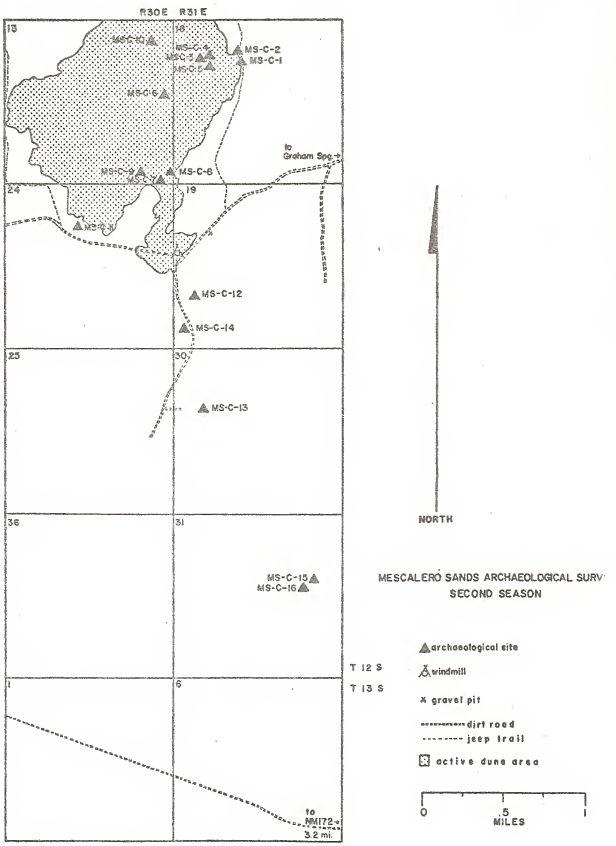


Figure 2. Location of sites in the survey area.

THE SURVEY AREA

Mescalero Sands is a series of sand hills situated east of the Pecos River and west of the Llano Estacado caprock in eastern New Mexico. While the area is part of the Pecos River drainage there are numerous playas with their internal drainage patterns.

Most of the moisture that falls in the Mescalero Sands is caught in these interior drainages and is sometimes held in small caliche catch basins for days. Many of these basins within the Mescalero Sands have contributed to the formation of the dunes. As the water evaporates from the playas the desiccated sediments are largely deflated by aeolian activity.

These areas have had considerable aeolian activity since the beginning of the Altithermal. The soils of the Mescalero Sands area are developing in alluvial and aeolian sediments. Hummocky and duned areas are common throughout the area. The barren areas of the dunes erode very actively during windy periods.

All of the soils of the Mescalero Sands area fall into the Jalmar-Tivoli-Faskin association. The following is taken from Maker, Link, Anderson and Hodson 1971:20.

Soil Characteristics: Jalmar soils occur on gently undulating and hummocky landscapes. They have a thick surface layer of light brown to brown fine sand over a subsoil of red to reddish-brown sandy clay loam. This, in turn, is underlain by yellowish-red light sandy clay loam. A white fractured caliche layer is often present at depths between four and six feet.

Tivoli soils occupy those parts of the landscape in this association that are gently rolling and have dune-like topography. They have surface layers of loose, noncalcareous yellowish-brown fine sand over thick deposits of fine sand.

Faskin soils occur on the nearly level to gently sloping areas between the rolling and duny landscapes of the Tivoli soils and undulating and hummocky landscapes occupied by the Jalmar soils. These soils have a surface layer of brown noncalcareous fine sandy loam of loamy fine sand over a thick reddish-brown sandy clay loam subsoil that is typically non-calcareous in the upper part. A weak but distinct zone of lime accumulation commonly occurs between 40 and 60 inches in the form of small soft masses and coatings on the surface of the soil beds.

Also in this association are small areas of active duneland, Redona, Gomez, Ima, and Blakeney soils. Active duneland includes the barren or nearly barren sand dunes that are actively eroding. The Redona soils have sandy loam surface layers, sandy clay loam subsoil and a strong lime zone at depths of 28 to 40 inches. The Gomez soils have a loamy fine sand surface, fine sandy loam subsoils, and strong lime zones at depths of 22 to 40 inches. The Ima soils are deep sandy loam soils in depressions and drainage. The Blakeney soils are shallow sand loam soils underlain by fractured indurated caliche. (Maker, Link, Anderson and Hodson 1971:20).

SURVEY PROCEDURES

The survey was conducted with five Archaeological Assistant III's, and the Field Director, under the direction of Dr. Stanley D. Bussey of the Cultural Resources Management Division, Department of Sociology and Anthropology, New Mexico State University.

The field procedure utilized for the intensive survey was a relatively simple one. Six persons were lined up ten (10) meters apart under the direction of the Field Director and proceeded to walk across the area in a north-south line. The end individual carried enough lath and flagging to mark the route so that there was no overlapping or missed areas on the return sweep. The pieces of lath were picked up on the return pass and placed on the new edge of the survey route. The Field Director, was responsible for the recording and analysis of the sites located during the survey.

In the areas where extensive survey was performed, the field personnel were divided into two teams, one under the Field Director the other under the Field Assistant. Transects were walked from one known point to another known point within the survey area. This method enabled the archaeological team to determine its location.

The transects walked in those sections of Extensive survey were intended to give site probability within those sections. Those sites recorded in the extensive survey will probably not be the only ones located within their particular sections.

All artifacts and sherds were left on the sites except several points which might have tempted collectors were mapped and removed. The points collected are deposited in the New Mexico State University Museum.

Site artifacts and photo records and maps were made in the field. Lath with flagging was placed on the dune top next to each site and noted on the site map. The survey number was placed on the lath with a permanent marking pen.

A total of sixteen (16) sites were located during the Mescalero Sands Project. The site designation MS indicates Mescalero Sands; C indicates New Mexico State University's third survey within the Mescalero Sands. Numbers were assigned consecutively in the field.

Tables I and II have been provided for quick reference to note the presence or absence of cultural material and to provide a ready guide to the cultural affiliations of each site. These tables correspond to those tables included in "Mescalero Sands Archaeological Resource Inventory Project Number 52500-CT5-1099" to enable future researchers a frame of reference between these two reports. Cultural identification was easier than on the previous survey because most of the new sites had datable ceramics. A more detialed description and quantity of material present can be found in the site survey forms included in the section entitled "The Sites". The interpretation of the survey material is found in the section entitled "Interpretation and Conclusions".

THE SITES

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14337

Site name _____ Field number MS-C-1

SE ¼ of the NE ¼ of the NW ¼, Sec. 18 T. 12 (N) (S) R. 31 (E) W, County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location In the old jeep trail to the NE of the dunes as shown on the map.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot x sedan ___ 4-wh. dr. x backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location Flagged 9 meters to the NE of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune x

Other Dune blowout depression Area of site N-S 8 M; E-W 6 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded x Pot-hunted ___ Pottery/Artifact abundance: (10's) 100's, 1000's, Lithics . Modern structures ~~Internal~~

Surface: Level ___ Uneven x Slopes to *(direction)* x Surface deposits: Alluvium ___ Colluvium ___ Aeolian x Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy x Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone x Shale ___ Caliche x Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 2 mi E Seeps ___

Bedrock pool ___ Permanent? Yes Local vegetation patterns Shin oak, sand drop seed grass, soap tree yucca, rabbit bush, saltbush and slight mesquite

Photo: B/W x Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural material recorded on this site include: 1 chert core / biface, 2 burned sandstone metate fragments, 1 white quartz flake - utilized but with no retouch - 45mm x 36mm x 10mm, 1 chert flake with retouch and cortex - 51mm x 58mm x 19mm- possibly a biface, 5-10 microflakes, approx. 10 pieces of limestone not indigenous to the area. (cont. on back

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 50 man days Time ___ Equipment ___

CULTURE Unknown / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

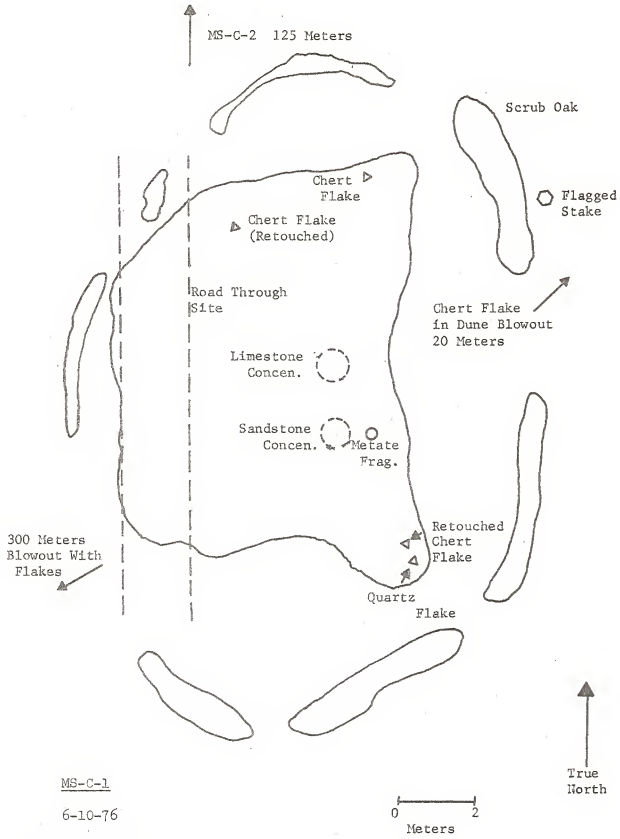
Lab. remarks ___

Field recorder Beckett/Southward Date 6/10/76 UTM Zone 13 Easting:605950 Northing: 3682850

Lab. recorder ___ Date ___

Field Remarks Continued:

Area ranchers Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-1

6-10-76

Map By F. Geery

MS-C-1

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July, 1976, salaries and materials costs.

Field Costs		
Field Archaeologist, @ 49.12/day, 10 days		$ 491.20
Archaeological Assistant III, @ 31.60/day, 40 days		1264.00
	Wages Sub-Total	1755.20
Fringe Benefits @ 13.85%		243.10
University Overhead @ 50%		877.60
	Total Salaries & Wages	$ 2875.90
Mileage, @ $.20/mile, 2000 miles		400.00
Expendable Field Supplies		100.00
Film		25.00
Per Diem, @ $24.00/day, 50 days		1200.00
	Total Supplies	$ 1725.00
	Total Field Costs	$ 4600.90
Laboratory Costs		
Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-1 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 20 days		$ 982.40
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1298.40
Fringe Benefits, @ 13.85%		179.83
University Overhead @ 60%		779.04
	Total Wages	$ 2257.27
Expendable Office Supplies		25.00
Developing and Printing Film		15.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2797.27
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 8877.08

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14338

Site name _____ Field number MS-C-2

SE ¼ of the NE ¼ of the NW ¼, Sec. 18, T. 12 (N.) S., R. 31 (E.) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location 125 meters N of site MS-C-1; the active dune area is 100 meters to the West.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 10 meters North of the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X
Other Situated in a large dune blowout. Area of site N-S 17 M; E-W 13 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___
Refuse area *(direction)* ___ Hearths ✓ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___
Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___
by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___
Nature & depth of fill Shallow blow sand very fresh Est. Wall height ___ Stratified? Unknown
Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 1 sherd of El Paso Brown Modern structures
Internal
Surface: Level ___ Uneven X Slopes to *(direction)* X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___
Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___
Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___
Arable land *(type, distance & direction)* ___
Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 2 mi E Seeps ___
Bedrock pool ___ Permanent? Yes Local vegetation patterns Shin oak, sand drop seed grass, soap tree yucca, saltbush, and rabbit bush

Photo: B/W X Color ___
Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural material recorded on this site include: 1 unifacially ground sandstone metate fragment - 98mm x 91mm x 32mm; 1 El Paso sherd; 1 grey chert core with cortex - 52mm x 51mm x 49mm; and 1 possible hearth area of burned caliche. The fresh covering of blow sand possibly covered other artifacts. Area ranchers, Graham and Williams, (cont.)

Reference Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements. Labor 25 man days Time ___ Equipment ___

CULTURE Jornada (East) / Querecho Phase Phase/Date AD 950-1100 / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

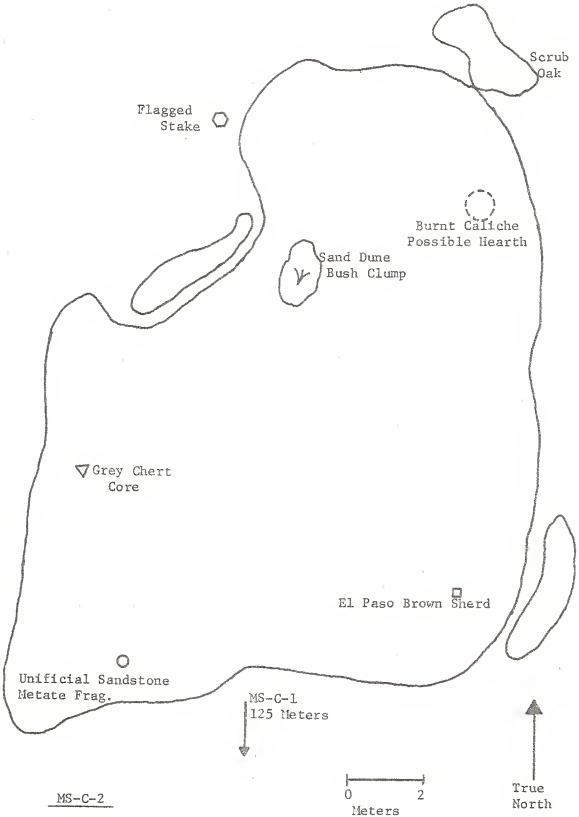
Lab. remarks ___

Field recorder Beckett/Southward Date 6/10/76 UTM Zone 13 Easting: 605930 Northing: 3682960

Lab recorder ___ Date ___

Field Remarks Continued:

state that all of the dunes in the site area have been actively collected over the years.



MS-C-2

6-10-76

Map By F. Geery

MS-C-2

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July, 1976 salaries and material costs.

Field Costs		
Field Archaeologist, @ 49.12/day, 5 days		$ 245.60
Archaeological Assistant III, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	877.60
Fringe Benefits @ 13.85%		121.55
University Overhead @ 50%		438.80
	Total Salaries & Wages	$ 1437.95
Mileage, @ $.20/mile, 1000 miles		200.00
Expendable Field Supplies		25.00
Film		10.00
Per Diem, @ $24.00/day, 25 days		600.00
	Total Supplies	$ 835.00
	Total Field Costs	$ 2272.95
Laboratory Costs		
Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 5 days		158.00
	Wages Sub-Total	403.60
Fringe Benefits @ 13.85%		55.90
University Overhead @ 60%		242.16
	Total Wages	$ 701.66
Expendable Supplies		25.00
	Total Laboratory Costs	$ 726.66

MS-C-2 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 79.12/day, 15 days		$ 736.80
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1052.80
Fringe Benefits, @ 13.85%		145.81
University Overhead @ 60%		631.68
	Total Wages	$ 1830.29
Expendable Office Supplies		20.00
Developing and Printing Film		25.00
Palynology, C-14, etc.		300.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2175.29
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 5627.47

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14339

Site name _____ Field number MS-C-3

SE ¼ of the NW ¼ of the NW ¼, Sec. 18, T. 12 (N.) (S.) R. 31 (E.) W., County Chaves State NM

Map source 7½ Minute Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location In the NE area of the active dune area, approximately 1100 feet west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot x sedan ___ 4-wh. dr. x backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 15 meters east of the site center.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune Active x

Other Large dune depression with calichified bottom Area of site N-S 15 M; E-W 20 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded x Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 15-20 lithics Modern structures ___

Surface: Level ___ Uneven x Slopes to *(direction)* Internal x Surface deposits: Alluvium ___ Colluvium ___ Aeolian x Talus ___

Residual ___ Soil: Rocky ___ Gravelly x Sandy x Clayey ___ Other ___

Local rock outcrops: Sandstone x Limestone x Shale ___ Caliche x Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? Yes Local vegetation patterns Cottonwood trees, sand drop seed grass, morning glory

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area. Photo: B/W ___ Color ___

Field remarks Cultural materials recorded on this site include: 1 bifacially ground sandstone metate fragment, with one side considerably more ground than the other - 84mm x 58mm x 34mm; 1 aggregate chert battering stone - 80mm x 63mm x 51mm; a second chert aggregate battering stone - 49mm x 43mm x 31mm; 15-20 flakes of chert and quartzite - mostly (cont.)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 50 man days Time ___ Equipment ___

CULTURE Unknown / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

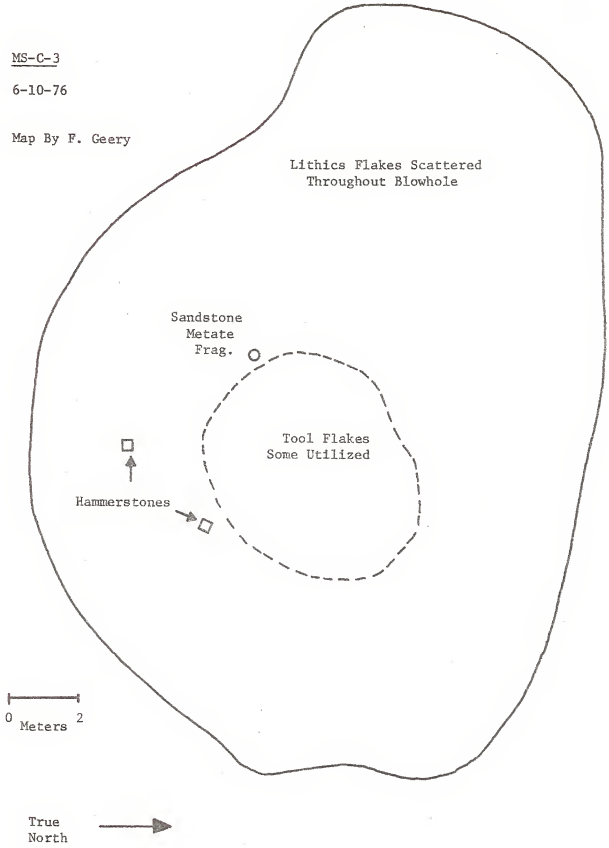
Field recorder Beckett/Southward Date 6/10/76 UTM Zone 13 Easting: 605580 Northing: 3682880

Lab. recorder ___ Date ___

Field Remarks Continued:

non utilized, but 1 chert flake was utilized and retouched; 3 shattered pebbles possibly cores; 1 grey chert flake (poss. point base) with a transverse fracture, thinning flake scars all across the dorsal side, fine microflake retouch on all dorsal edges and no cortex; light claiche scatter across the blowout bottom.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.


MS-C-3
6-10-76
Map By F. Geery
Lithics Flakes Scattered
Throughout Blowhole
Sandstone
Metate
Frag.
Tool Flakes
Some Utilized
Hammerstones
0
Meters
2
True
North

MS-C-3

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July, 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 10 days		$ 491.20
Archaeological Assistant III, @ 31.60/day, 40 days		1264.00
	Wages Sub-Total	1755.20
Fringe Benefits @ 13.85%		243.10
University Overhead @ 50%		877.60
	Total Salaries & Wages	$ 2875.90
Mileage, @ $.20/mile, 2000 miles		400.00
Expendable Field Supplies		100.00
Film		25.00
Per Diem, @ $24.00/day, 50 days		1200.00
	Total Supplies	$ 1725.00
	Total Field Costs	$ 4600.90

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-3 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 20 days		$ 982.40
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1298.40
Fringe Benefits, @ 13.85%		179.83
University Overhead @ 60%		779.04
	Total Wages	$ 2257.27
Expendable Office Supplies		25.00
Developing and Printing Film		15.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2797.27
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 8877.08

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14340

Site name _____ Field number MS-C-4

SE ¼ of the NW ¼ of the NW ¼, Sec. 18, T. 12 (N) R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location 100 meters NE of MS-C-3, 1000 feet west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location 20 meters South of the site center.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large active dune blowout Area of site N-S 25 M; E-W 12 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's 25 Lithics . Modern structures ___

Internal

Surface: Level ___ Uneven X Slopes to *(direction)* X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? Yes Local vegetation patterns Cottonwoods, sand drop seed grass, and morning glory around the dune blowout perimeters.

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural resources recorded on this site include: 1 quartzite core - 30mm x 27mm x 15mm, 1 bifacial sandstone mano fragment - foliated - 49mm x 43mm x 31mm, 1 bifacial quartzite mano fragment - 80mm x 41mm x 50mm, 2 utilized chert flakes, 1 utilized chert flake w/ unifacial retouch, 3 shattered pebbles - possibly cores, 1 transversely broken (cont.)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 25 man days Time ___ Equipment ___

CULTURE Unknown / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

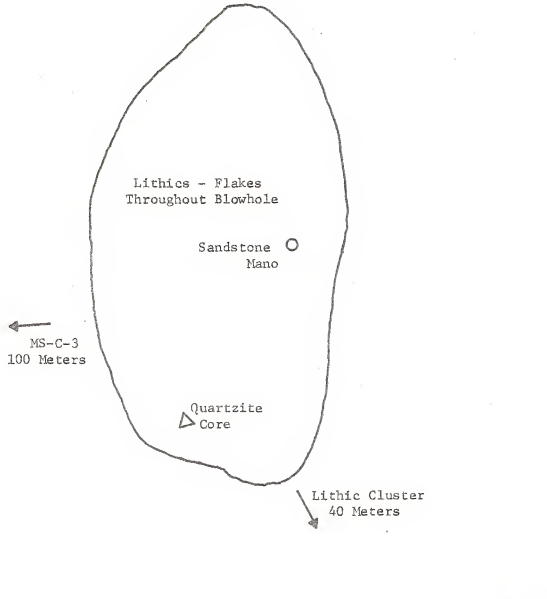
Field recorder Beckett/Southward Date 6/11/76 UTM Zone 13 Easting: 605640 Northing: 3682900

Lab. recorder ___ Date ___

Field Remarks Continued:

flake (very possibly a point), approx. scatter of 40 flakes, mostly chert with some quartzite - some retouched and utilized, moderate amount of large bone - very fragmentary, and some darkened caliche.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-4

6-10-76

Map By F. Geery

MS-C-4

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July, 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 15 days		$ 245.60
Archaeological Assistant III, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	877.60
Fringe Benefits @ 13.85%		121.55
University Overhead @ 50%		438.80
	Total Salaries & Wages	$ 1437.95
Mileage, @ $.20/mile, 1000 miles		200.00
Expendable Field Supplies		25.00
Film		10.00
Per Diem, @ $24.00/day, 25 days		600.00
	Total Supplies	$ 835.00
	Total Field Costs	$ 2272.95

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 5 days		158.00
	Wages Sub-Total	403.60
Fringe Benefits @ 13.85%		55.90
University Overhead @ 60%		242.16
	Total Wages	$ 701.66
Expendable Supplies		25.00
	Total Laboratory Costs	$ 726.66

MS-C-4 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 29.12/day, 15 days		$ 736.80
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1052.80
Fringe Benefits, @ 13.85%		145.81
University Overhead @ 60%		631.68
	Total Wages	$ 1830.29
Expendable Office Supplies		20.00
Developing and Printing Film		25.00
Palynology, C-14, etc.		300.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2175.29
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 5627.47

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14341

Site name _____ Field number MS-C-5

SE ¼ of the NW ¼ of the NW ¼, Sec. 18 T. 20 (N) (S) R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location Located in the NE portion of the actively shifting sands, 53 meters South of site MS-C-4. Approximately 950 feet west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location 20 meters South of the center of the site.

SITUATION *(check ✓)*. Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune Active X

Other located in the bottom of an old playa - calichified Area of site 15 meters in diameter

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Slight, shallow blow-sand covering Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 10 Lithics . Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly X Sandy X Clayey X Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 2 mi E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns cottonwood trees, sand drop seed grass, and morning glory.

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) a - natural food source in the area.

Field remarks Cultural material recorded on this site include: 3 pieces of clear purple chert with no retouch or utilization; 1 utilized chert flake with unifacial retouch on opposite right lateral margins - dorsal surface has some thinning flake scars - this flake is (cont) is broken with a transverse fracture and may be of early man origin; 1 one-handed

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek

Excavation requirements: Labor 25 man days Time ___ Equipment ___

CULTURE Unknown / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

Field recorder Beckett/Southward Date 6/10/76

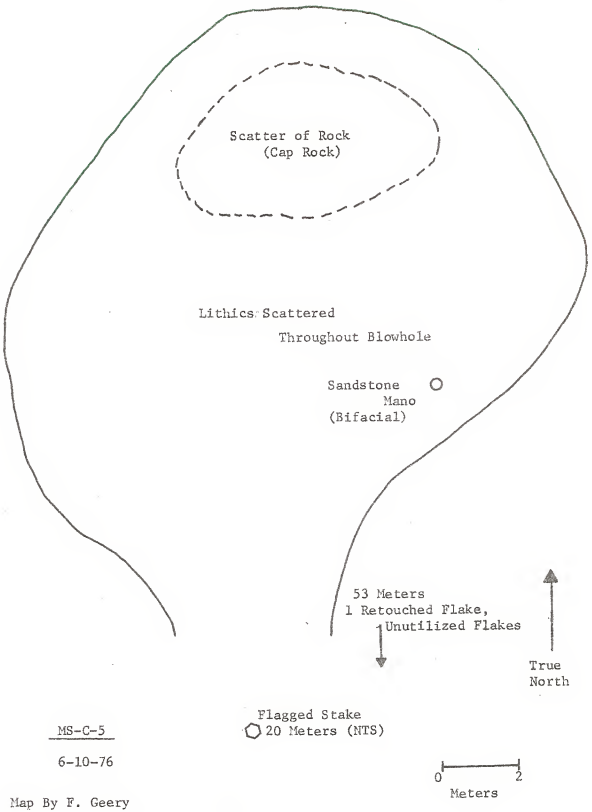
Lab. recorder ___ Date ___

UTM Zone 13
Easting: 605650 Northing: 3682800

Field Remarks Continued:

bifacial sandstone mano; approx. 15 chert flakes; and abundance of scattered bone; and numerous non-indigenous rocks from the Caprock area.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-5

6-10-76

Map By F. Geery

MS-C-5

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 5 days		$ 245.60
Archaeological Assistant III, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	877.60
Fringe Benefits @ 13.85%		121.55
University Overhead @ 50%		438.80
	Total Salaries & Wages	$ 1437.95
Mileage, @ $.20/mile, 1000 miles		200.00
Expendable Field Supplies		25.00
Film		10.00
Per Diem, @ 24.00/day, 25 days		600.00
	Total Supplies	$ 835.00
	Total Field Costs	$ 2272.95

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 5 days		158.00
	Wages Sub-Total	403.60
Fringe Benefits @ 13.85%		55.90
University Overhead @ 60%		242.16
	Total Wages	$ 701.66
Expendable Supplies		25.00
	Total Laboratory Costs	$ 726.66

MS-C-5 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 15 days		$ 736.80
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1052.80
Fringe Benefits, @ 13.85%		145.81
University Overhead @ 60%		631.68
	Total Wages	$ 1830.29
Expendable Office Supplies		20.00
Developing and Printing Film		25.00
Palynology, C-14, etc.		300.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2175.29
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 5627.47

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14342

Site name _____ Field number MS-C-6

SE ¼ of the SE ¼ of the NE ¼, Sec. 13, T. 12 (N.) (S) R. 30 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4050'

Drainage: primary Pecos River secondary Internal

Location Approximately one mile North of Graham well , 1/2 mile west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location Flagged 20 Meters West of center of site.

Active

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large dune blowout in heavy dune area. Area of site N-S 20 meters; E-W 8 meters

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: (0's) 100's, 1000's, Lithics . Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly X Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns Cottonwood trees, and sand drop seed grasses

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural material recorded on this site includes: 1 bifacially ground sandstone mano frag.; a second possible sandstone grinding stone that was badly weathered; 2 quartz blade frag. unifacially worked - fit together it measures 60mm x 40mm x 30mm (thickest) - this blade was broken with a transverse frac. at the distal end; one end scraper; one (cont

Reference Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 75 man days Time ___ Equipment ___

CULTURE Unknown / Phase/Date Unknown /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

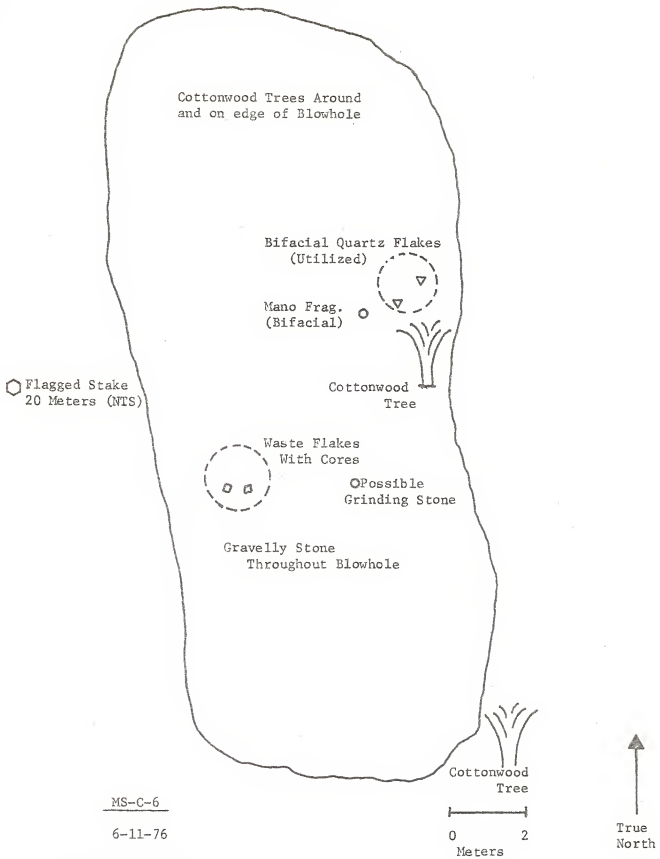
Field recorder Beckett/Southward Date 6/11/76

Lab. recorder ___ Date ___

UTM Zone 13
Easting: 605240 Northing: 3682520

Field Remarks Continued:

piece of heated quartz; and it seems very possible that the residual gravel found in this blowout could have been used as a quarry source. Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years. Waste flakes with utilized and retouched flakes were present on the surface.



Map By F. Geery

MS-C-6

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/ day, 15 days		$ 736.80
Archaeological Assistant III, @ 31.60/day, 60 days		1896.00
	Wages Sub-Total	2632.80
Fringe Benefits @ 13.85%		364.64
University Overhead @ 50%		1316.40
	Total Salaries & Wages	$ 4313.84
Mileage, @ $.20/mile, 3000 miles		600.00
Expendable Field Supplies		150.00
Film		35.00
Per Diem, @ 24.00/day, 75 days		1800.00
	Total Supplies	$ 2585.00
	Total Field Costs	$ 6898.84

Laboratory Costs

Laboratory Director, @ 49.12/day , 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-6 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 25 days		$ 1228.00
Typist and Draftsman, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	1702.00
Fringe Benefits, @ 13.85%		235.73
University Overhead @ 60%		1021.20
	Total Wages	$ 2958.93
Expendable Office Supplies		50.00
Developing and Printing Film		50.00
Palynology, C-14, etc		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 3558.93
Supervisory and Publication Costs		
Principal Invertigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		300.00
	Total Supervisory & Publication Costs	$ 552.57
	TOTAL PROJECT COSTS	$12,036.68

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14343

Site name _____ Field number MS-C-7A & 7B

SE ¼ of the SE ¼ of the SE ¼, Sec 13, T. 12 (N) (S) R. 30 (E) W, County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4040'

Drainage: primary Pecos River secondary Internal

Location approximately 2500 feet north of Graham well and 1800 feet west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot x sedan ___ 4-wh. dr. x backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 30 meters SE from the center of blowout 7A.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune x

Other Dune blowout with calicified bottom Area of site 7A: N-S 13 M; E-W 20 M
7B: N-S 30 M; E-W 31 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Extremely heavy covering of blow sand Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded x Pot-hunted ___ Pottery/Artifact abundance: (0's) 100's, 1000's, Lithics. Modern structures Internal

Surface: Level ___ Uneven x Slopes to *(direction)* x Surface deposits: Alluvium ___ Colluvium ___ Aeolian x Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy x Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone x Shale ___ Caliche x Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)*: ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns No vegetation in immediate local, but cottonwood, scrub oak, and sand drop seed grasses covering dune tops 80 meters away both to the north and south

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area Photo: B/W x Color ___

Field remarks Cultural materials recorded on this site include: (in 7A) - 1 piece of sandstone metate w/ pecking - 350mm x 298mm x 40mm, 1 chert flake unifacially retouched and utilized with a good cutting edge, 2 utilized chert flakes, 4 quartz flakes - 2 of which were utilized, 1 utilized quartz blade, 1 chert pebble core and 1 quartz pebble core, (cont.)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek

Excavation requirements: Labor 25 man days Time ___ Equipment ___

CULTURE Unknown / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

Field recorder Beckett/Southward Date 6/11/76

Lab recorder ___ Date ___

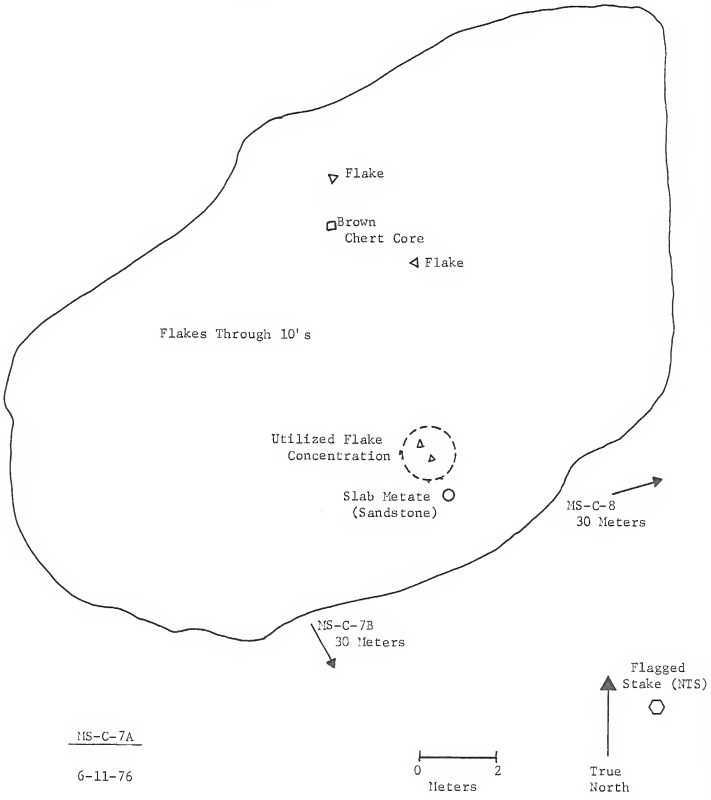
UTM Zone 13
Easting: 605220 Northing: 3681680

Field Remarks Continued:

several fragments of bone, and 10 pieces of caliche.

(In 7B) - 1 grey banded chert triangular point w/side notches, basal thinning, retouch on all edges, and one broken flang; 1 convex chert end scraper w/cortex, utilized on all edges, with thinning flake scars across both surfaces - 39mm x 27mm x 11mm; 1 quartz cobble core; 1 quartz chunk with edge retouch and fragments of bone.

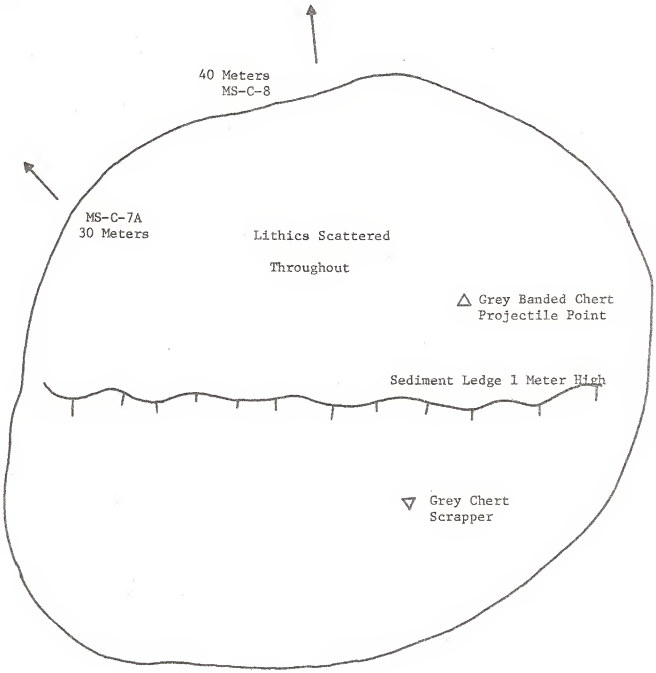
Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-7A

6-11-76

Map By F. Geery



MS-C-7B

6-11-76

Map By F. Geery

0 4
Meters

True
North

MS-C-7

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salar es and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 5 days		$ 245.60
Archaeological Assistant III, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	877.60
Fringe Benefits @ 13.85%		121.55
University Overhead @ 50%		438.80
	Total Salaries & Wages	$ 1437.95
Mileage, @ $.20/mile, 1000 miles		200.00
Expendable Field Supplies		25.00
Film		10.00
Per Diem, @ 24.00/day, 25 days		600.00
	Total Supplies	$ 835.00
	Total Field Costs	$ 2272.95

Laboratory Costs

Laboratory Director , @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 5 days		158.00
	Wages Sub-Total	403.60
Fringe Benefits @ 13.85%		55.90
University Overhead @ 60%		242.16
	Total Wages	$ 701.66
Expendable Supplies		25.00
	Total Laboratory Costs	$ 726.66

MS-C-7 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 15 days		$ 736.80
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1052.80
Fringe Benefits, @ 13.85%		145.81
University Overhead @ 60%		631.68
	Total Wages	$ 1830.29
Expendable Office Supplies		20.00
Developing and Printing Film		25.00
Palynology, C-14, etc.		300.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2175.29
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 5627.47

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14344

Site name _____ Field number MS-C-8

SE ¼ of the SE ¼ of the SE ¼, Sec. 13 T. 12 (N) (S) R. 30 (E) W. County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4040'

Drainage: primary Pecos River secondary Internal

Location This site is 100 meters NE of MS-C-7A & 7B and approximately ½ mile North of Graham's well.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 15 meters to the NE off the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune Active X

Other Large dune blowout with hard calichified bottom. Area of site N-S 29 M; E-W 17 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: (0's) 100's, 1000's, Lithics . Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns This site is located in a very heavy dune area and the nearest vegetation was scrub oak 50 meters to the south and cottonwood and sand drop seed grasses 40-50 meters to the north and east. Photo: B/W X Color ___

Other resources ___

Field remarks Cultural materials recorded on this site included: 1 quartzite blade utilized as a scraper - 40mm x 19mm x 12mm; 1 small retouched chert flake; 1 sandstone chopper; 1 chert pebble core utilized as a scraper; and 1 chert point with the point missing - this point had 2 base notches with expanding corner tangs, was triangular in shape & had thinning-cont

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 50 man days Time ___ Equipment ___

CULTURE Unknown / Phase/Date Unknown /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

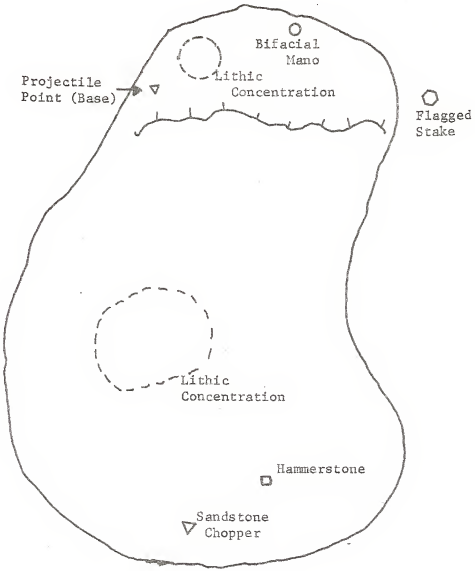
Field recorder Beckett/ Southward Date 6/11/76 UTM Zone 13 Easting: 605300 Northing: 3681750

Lab. recorder ___ Date ___

Field Remarks Continued:

flake scars on the basal, ventral and dorsal surfaces as well as edge retouch on these same surfaces.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-8

6-11-76

Map By F. Geery

MS-C-8

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 10 days		$ 491.20
Archaeological Assistant III, @ 31.60/day, 40 days		1264.00
	Wages Sub-Total	1755.20
Fringe Benefits @ 13.85%		243.10
University Overhead @ 50%		877.60
	Total Salaries & Wages	$ 2875.90
Mileage, @ $.20/mile, 2000 miles		400.00
Expendable Field Supplies		100.00
Film		25.00
Per Diem, @ 24.00/day, 50 days		1200.00
	Total Supplies	$ 1725.00
	Total Field Costs	$ 4600.90

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-8 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 20 days		$ 982.40
Typist And Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1298.40
Fringe Benefits @ 13.85%		179.83
University Overhead @ 60%		779.04
	Total Wages	$ 2257.27
Expendable Office Supplies		25.00
Developing and Printing Film		15.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2797.27
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 457.57
	TOTAL PROJECT COSTS	8877.08

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14345

Site name _____ Field number MS-C-9

SW ¼ of the SE ¼ of the SE ¼, Sec. 13 T. 12 (N) (S) R. 30 (E) W. County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4070'

Drainage: primary Pecos River secondary Internal

Location Approximately 3000 feet NW of Graham well and 2300 feet west of the old jeep trail.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. ___ X backhoe ___

Ownership Bureau of Land Management- Roswell District

Informant _____

Stake location This site was flagged 25 meters N.NE off the center of the site. Active

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Dune blowout with old calichified lake bottom Area of site N-S 18 M x E-W 15 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, Lithics . Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly X Sandy X Clayey X Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? ___ Local vegetation patterns cottonwood trees, morning glory, and sand drop seed grasses on the perimeter of the dune top.

Photo: B/W X Color ___

Other resources ___

Field remarks This site contained mastodon bones erroding out of old lake bottom sediments. Some of the bones identifiable in the field were a tusk, a longbone, and a joint. There were lithics found on this site but they are not in assoc. with the mastodon. These lithics include: 1 quartz flake with no retouch or utilization; 1 chert blade 35mm long; (continued on back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 75 man days Time ___ Equipment ___

CULTURE Archaic? / ___ Phase/Date Unknown / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

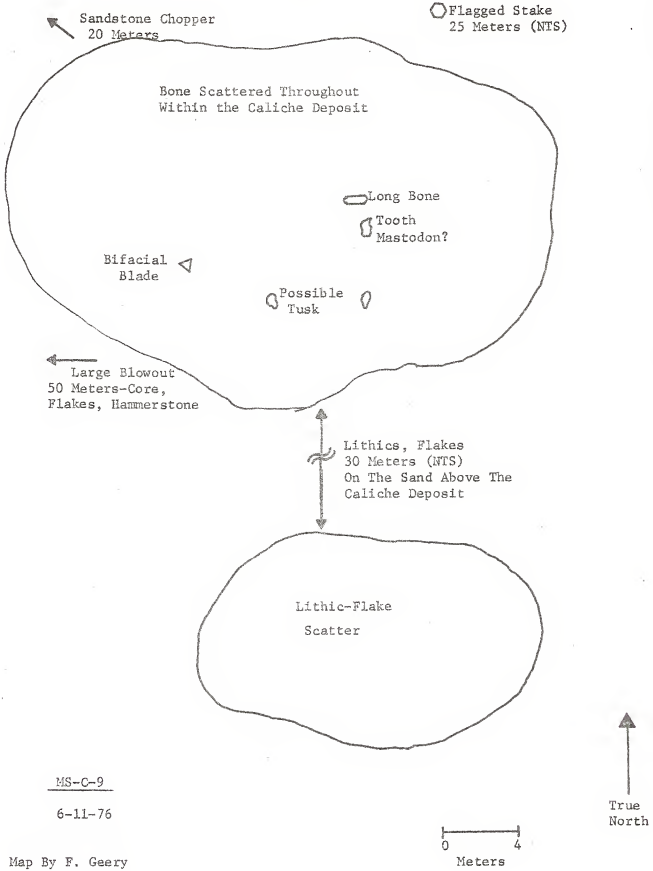
Field recorder Beckett/Southward Date 6/11/76 UTM Zone 13 Easting: 608010 Northing: 3681760

Lab recorder ___ Date ___

Field Remarks Continued:

1 broken chalcedony biface - 55mm x 45mm x 15mm; 1 chert flake w/no retouch or utilization; 1 chert flake that had been utilized; and 1 fine grained quartz side scraper - 50mm x 40mm x 10 mm.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.


Sandstone Chopper
20 Meters
Flagged Stake
25 Meters (NTS)
Bone Scattered Throughout
Within the Caliche Deposit
Long Bone
Tooth
Mastodon?
Bifacial
Blade
Possible
Tusk
Large Blowout
50 Meters-Core,
Flakes, Hammerstone
Lithics, Flakes
30 Meters (NTS)
On The Sand Above The
Caliche Deposit
Lithic-Flake
Scatter
MS-C-9
6-11-76
Map By F. Geery
True
North
0
4
Meters

MS-C-9

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs		
Field Archaeologist, @ 49.12/day, 15 days		$ 736.80
Archaeologisal Assistant III, @ 31.60/day, 60 days		1896.00
	Wages Sub-Total	$ 2632.80
Fringe Benefits @ 13.85%		364.64
University Overhead @ 50%		1316.40
	Total Salaries & Wages	$ 4313.84
Mileage, @ $.20/mile, 3000 miles		600.00
Expendable Field Supplies		150.00
Film		35.00
Per Diem, @ 24.00/day, 75 days		1800.00
	Total Supplies	$ 2585.00
	Total Field Costs	$ 6898.84
Laboratory Costs		
Laboratory Director, @ 49.12/day, 10 days		491.20
Laboratory Assistant, @ 31.60/day, 5 days		474.00
	Wages Sub-Total	965.20
Fringe Benefits @ 13.85%		133.68
University Overhead @ 60%		579.12
	Total Wages	1678.00
Expendable Supplies		100.00
	Total Laboratory Costs	$ 1778.00

MS-C-9 (Con't)

Intrepretation and Writing Costs		
Archaeologist, @ 49.12/day, 25 days		$ 1228.00
Typist and Draftsamn, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	1702.00
Fringe Benefits, @ 13.85%		235.73
University Overhead @ 60%		1021.20
	Total Wages	$ 2958.93
Expendable Office Supplies		50.00
Developing and Printing Film		50.00
Palynology, C-14, Bone Analysis, etc.		750.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 3808.93
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		350.00
	Total Supervisory & Publication Costs	$ 602.57
	TOTAL PROJECT COSTS	$13,088.34

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14346

Site name _____ Field number MS-C-10

NE ¼ of the NE ¼ of the NE ¼, Sec. 13, T. 12 (N.) (S.) R. 30 (E.) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4050'

Drainage: primary Pecos River secondary Internal

Location This site is in the NE portion of the shifting dune area, approx. ½ mile West of the old jeep track as shown on the USGS map.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 20 meters north of the center of the site.

Active

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large dune blowout in very heavily shifting sand. Area of site 17 meters in diameter

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___ by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Sandy and shallow fresh sand over old blowout Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: (10's) 100's, 1000's Chupadero Modern structures Internal

Surface: Level ___ Uneven X Slopes to *(direction)* X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns scrub oak and sand drop seed grasses on nearby dune tops - cottonwood trees and morning glory in nearby blowouts, but no vegetation in the bottom of this particular dune. Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural materials recorded on this site include: 1 unifacial concave sandstone basin metate - 115mm x 120 mm x 35mm (thickest) x 10mm (thinnest); 8 sherds of chupadero, possibly all of the same bowl; and 1 small chert flake with cortex, but no signs of use or retouch apparent. Very recent blow sand covered much of this site. (continued on the back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 50 man days Time ___ Equipment ___

CULTURE Jornada Mogollon / Querecho/Maljamar Phase/Date 950-1300 AD /

Eastern

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

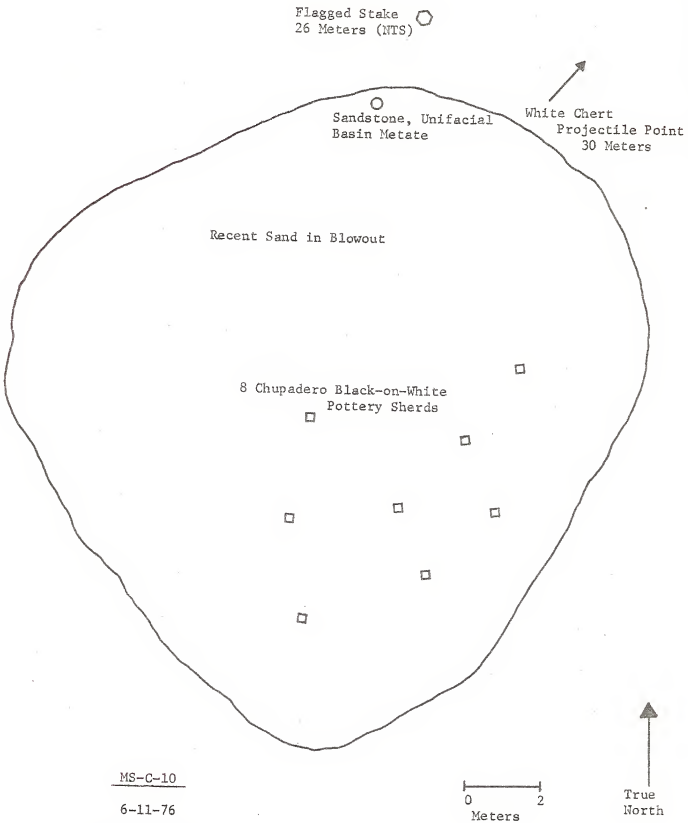
Lab. remarks ___

Field recorder Beckett/Southward Date 6/11/76 UTM Zone 13 Easting: 605090 Northing: 3683025

Lab. recorder ___ Date ___

Field Remarks Continued:

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-10

6-11-76

Map By F. Geery

MS-C-10

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 10 days		$ 491.20
Archaeological Assistant III, @ 31.60/day, 40 days		1264.00
	Wages Sub-Total	1755.20
Fringe Benefits @ 13.85%		243.10
University Overhead @ 50%		877.60
	Total Salaries & Wages	$ 2875.90
Mileage, @ $.20/mile, 2000 miles		400.00
Expendable Field Supplies		100.00
Film		25.00
Per Diem, @ 24.00/day, 50 days		1200.00
	Total Supplies	$ 1725.00
	Total Field Costs	$ 4600.90

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	$ 561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-10 (Con't)

Intrepretation and Writing Costs		
Archaeologist, @ 49.12/day, 20 days		$ 982.40
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1298.40
Fringe Benefits @ 13.85%		179.83
University Overhead @ 60%		779.04
	Total Wages	$ 2257.27
Expendable Office Supplies		25.00
Developing and Printing Film		15.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Intrepretation & Writing Costs	$ 2797.27
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 8877.08

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14347

Site name _____ Field number MS-C-11

SE ¼ of the NE ¼ of the NW ¼, Sec. 24, T. 12 (N/S) R. 30 (E/W), County Chaves State NM

Map source 7½ Minute USGS Culp Ranch Quad - Advance Proof Elevation 4020'

Drainage: primary Pecos River secondary Internal

Location Located in the southwestern portion of the active dunes. 650 feet north of the dirt road that goes between Graham well and a old drill hole.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot x sedan ___ 4-wh. dr. x backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 30 meters to the south of the site center.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune x

Other Dune blowout with old calichified lake bottom. Area of site N-S 11 M x E-W 15 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? No

Condition: Undisturbed ___ Eroded x Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 25 Lithics. Modern structures 1 El Paso Brown

Surface: Level ___ Uneven x Slopes to *(direction)* Internal x Surface deposits: Alluvium ___ Colluvium ___ Aeolian x Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy x Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone x Shale ___ Caliche x Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 29mi. W Arroyo ___ Confluence ___ Spring 3 mi. E Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns scrub oak, soaptree yucca and sand dropsee grasses on dune top, rabbit bush, an unknown flowering perennial and another unknown bush in the dune blowout bottom.

Photo: B/W x Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural materials recorded on this site include: 1 sherd of El Paso; 1 frag. of a unifacially ground sandstone metate - 130mm x 80mm x 30mm at thickest, 10mm at thinnest; 1 chert drill point base with flared bottom; 1 lg. quartz sandstone bifacial tool with retouch - 56mm x 20mm x 11 mm; and scattered chert flakes over the site (continued on back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 25 man days Time ___ Equipment ___

CULTURE Jornada (East) / Querecho Phase Phase/Date AD 950-1100 /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

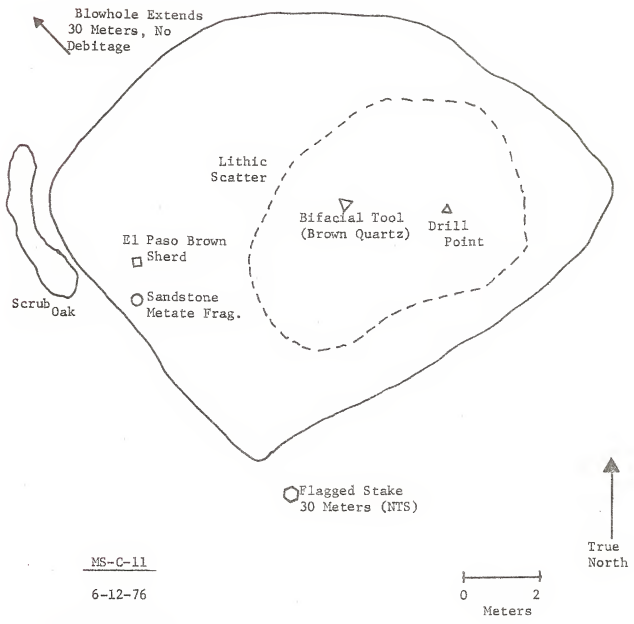
Field recorder Southward Date 6/12/76 UTM Zone 13 Easting: 604440 Northing: 3681240

Lab. recorder ___ Date ___

Field Remarks Continued:

numbering 25 - many of these flakes are very thin w/both utilization and retouch, some have cortex present and some don't.

Area ranchers, Graham and Williams, state that all of the dunes in the area have been actively collected over the years.



MS-C-11

6-12-76

Map By F. Geery

MS-C-11

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 5 days		$ 245.60
Archaeological Assistant III, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	877.60
Fringe Benefits @ 13.85%		121.55
University Overhead @ 50%		438.80
	Total Salaries and Wages	$ 1437.95
Mileage, @ $.20/mile, 1000 miles		200.00
Expendable Field Supplies		25.00
Film		10.00
Per Diem, @ 24.00/day, 25 days		600.00
	Total Supplies	$ 835.00
	Total Field Costs	$ 2272.95

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 5 days		158.00
	Wages Sub-Total	403.60
Fringe Benefits @ 13.85%		55.90
University Overhead @ 60%		242.16
	Total Wages	$ 701.66
Expendable Supplies		25.00
	Total Laboratory Costs	$ 726.66

MS-C-11 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 15 days		$ 736.80
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1052.80
Fringe Benefits @ 13.85%		145.81
University Overhead @ 60%		631.68
	Total Wages	$ 1830.29
Expendable Office Supplies		20.00
Developing and Printing Film		25.00
Palynology, C-14, etc.		300.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2175.29
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 5627.47

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14348

Site name _____ Field number MS-C-12

SE ¼ of the NW ¼ of the SW ¼, Sec. 19, T. 12 (N) (S) R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4030'

Drainage: primary Pecos River secondary Internal

Location In the bottom of a large depression approx. 1500' SE from Graham's well, 600 feet east of the road that runs south out of Grahams well.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 30 meters SW of the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X
Other Large dune depression Area of site N-S 95 M; E-W 55 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___
Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___
Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___
by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand - 5-10 cm. Est. Wall height ___ Stratified? 7 inches
Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's El Paso Brown, Jornada Brown 16 sherds 25 lithics Modern structures

Internal
Surface: Level ___ Uneven X Slopes to *(direction)* ___ Surface deposits: Alluvium X Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone X Limestone ___ Shale ___ Caliche ___ Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence at site Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? ___ Local vegetation patterns shin oak, soap tree yucca, sand drop seed grass, sagebrush, and snakeweed.

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural materials recorded on this site include: 2 sandstone mano fragments, 2 sandstone metate fragments, 1 unidentifiable grinding stone of sandstone, 1 grey chert side scraper, and approx. 24 retouched and utilized flakes - predominantly chert with some chalcedony. Area ranchers, Graham and Williams, state that all of the (cont. on back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 75 man days Time ___ Equipment ___

CULTURE Jornada/Mogollon /Querecho Phase Phase/Date 950-1100 AD / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

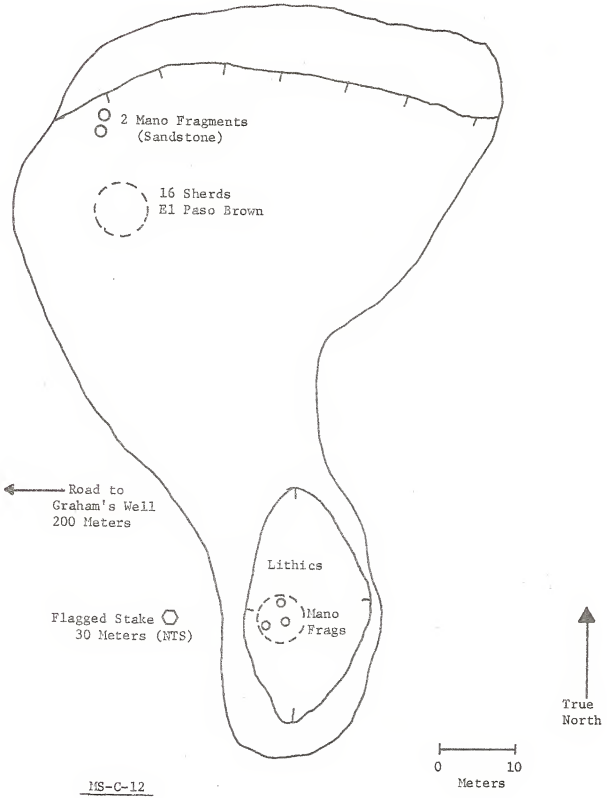
Lab. remarks ___

Field recorder: Beckett Date 6/12/76 UTM Zone 13 Easting: 603550 Northing: 3680550

Lab recorder ___ Date ___

Field Remarks Cont nued:

dunes in the ;ite area have been actively collected over the years.



MS-C-12

6-12-76

Map By F. Geery

MS-C-12

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 15 days		$ 736.80
Archaeological Assistant III, @ 31.60/day, 60 days		1896.00
	Wages Sub-Total	2632.80
Fringe Benefits @ 13.85%		364.64
University Overhead @ 50%		1316.40
	Total Salaries & Wages	$ 4313.84
Mileage, @ $.20/mile, 3000 miles		600.00
Expendable Field Supplies		150.00
Film		35.00
Per Diem, @ 24.00/day, 75 days		1800.00
	Total Supplies	$ 2585.00
	Total Field Costs	$ 6898.84

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-12 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 25 days		$ 1228.00
Typist and Draftsman, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	1702.00
Fringe Benefits @ 13.85%		235.73
University Overhead @ 60%		1021.20
	Total Wages	$ 2958.93
Expendable Office Supplies		50.00
Developing and Printing Film		50.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 3558.93
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		300.00
	Total Supervisory & Publication Costs	552.57
	TOTAL PROJECT COSTS	$12,036.68

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO. L.A. 14349

Site name _____ Field number MS-C-13

NE ¼ of the SW ¼ of the NW ¼, Sec. 30, T. 12 (N) (S), R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance proof Elevation 4020'

Drainage: primary Pecos River secondary Internal

Location This site is located 100 meters NE of an old drill hole and pad.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 15 meters SW of the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large depression. Area of site N-S 21 M; E-W 17 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ F-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand from 0-50 cm. Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 1 sherd . Modern structures 6-10 lithics

Surface: Level ___ Uneven X Slopes to *(direction)* Internal Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone ___ Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? ___ Local vegetation patterns Shin oak, soap tree yucca, morning glory, sage, and occaisonal prickly pear

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area Photo: B/W X Color ___

Field remarks Cultural materials recorded on this site include: 1 sherd of El Paso Brown, one quartzite hammerstone - 52mm x 58mm x 42mm, 1 red utilized quartzite flake, 3 non-utilized chert flakes with cortex. Very heavy fresh aeolian in the bottom of this blowout is probably hiding more artifacts. Area ranchers, Graham and Williams, state that (cont. on back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 50 days Time ___ Equipment ___

CULTURE Jornada/Mogollon / Querecho Phase/Date 950-1100 AD / ___

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

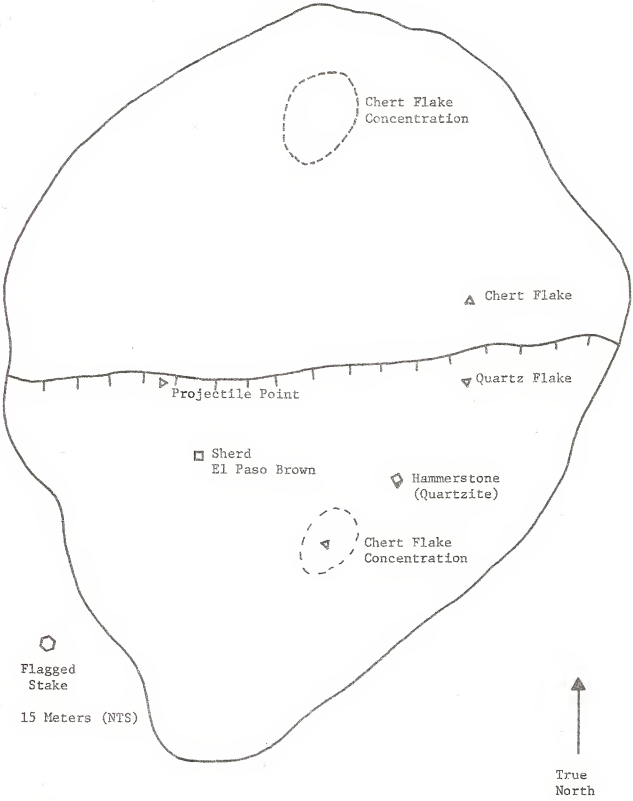
Field recorder Beckett Date 6/12/76

Lab. recorder ___ Date ___

UTM Zone 13
Easting: 605660 Northing: 3679450

Field Remarks Continued:

all of the dunes in the site area have been actively collected over the years.



MS-C-13

6-12-76

Map By F. Ceery

MS-C-13

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 10 days		$ 491.20
Archaeological Assistant III, @ 31.60/day, 40 days		1264.00
	Wages Sub-Total	1755.00
Fringe Benefits @ 13.85%		243.10
University Overhead @ 50%		877.60
	Total Salaries & Wages	$ 2875.90
Mileage, @ $.20/mile, 2000 miles		400.00
Expendable Field Supplies		100.00
Film		25.00
Per Diem, @ 24.00/day, 50 days		1200.00
	Total Supplies	$ 1725.00
	Total Field Costs	$ 4600.90

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-13 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 20 days		$ 982.40
Typist and Draftsman, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	1298.40
Fringe Benefits @ 13.85%		179.83
University Overhead @ 60%		779.04
	Total Wages	$ 2257.27
Expendable Office Supplies		25.00
Developing and Printing Film		15.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 2797.27
Supervisory and Publication Costs		
Principal Investigator @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		200.00
	Total Supervisory & Publication Costs	$ 452.57
	TOTAL PROJECT COSTS	$ 8877.08

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14350

Site name _____ Field number MS-C-14

NW ¼ of the SW ¼ of the SW ¼, Sec. 19, T. 12 (N) (S) R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Mescalero Point - Advance Proof Elevation 4025'

Drainage: primary Pecos River secondary Internal

Location 30 meters W of a dirt road that goes to Graham's well, approximately 2000 feet south of Graham well.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is located 11 meters E of the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large dune depression - and a series of small ones Area of site N-S 9 M; E-W 12 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 10-20 sherds 10 lithics Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi E Seeps ___

Bedrock pool ___ Permanent? ___ Local vegetation patterns Shin oak, soap tree yucca, sand drop seed grass, and snake bush

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural materials recorded on this site include: sherds of Roswell Brown, Jornada Brown and El Paso Brown, one sandstone mano fragment, and approx. 10 non-utilized flakes mostly quartzite and chert. Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 75 man days Time ___ Equipment ___

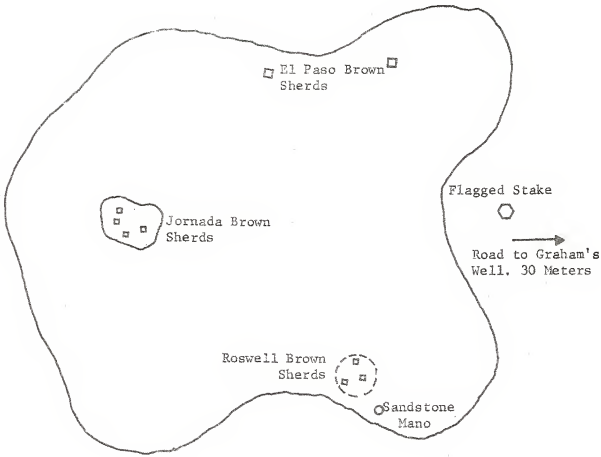
CULTURE Jornada/Mogollon / Querecho Phase/Date 950-1100 AD /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

Field recorder Beckett Date 6/12/76 UTM Zone 13 Easting: 605460 Northing: 3680220

Lab. recorder ___ Date ___



MS-C-14

6-12-76

Map By F. Geery

0 2
Meters

True North

MS-C-14

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 15 days		$ 736.80
Archaeological Assistant III, @ 31.60/day, 60 days		1896.00
	Wages Sub-Total	2632.80
Fringe Benefits @ 13.85%		364.64
University Overhead @ 50%		1316.40
	Total Salaries & Wages:	$ 4313.84
Mileage, @ $.20/mile, 3000 miles		600.00
Expendable Field Supplies		150.00
Film		35.00
Per Diem, @ 24.00/day, 75 days		1800.00
	Total Supplies	$ 2585.00
	Total Field Costs	$ 6898.84

Laboratory Costs

Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-14 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 25 days		$ 1228.00
Typist and Draftsman, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	1702.00
Fringe Benefits @ 13.85%		235.73
University Overhead @ 60%		1021.20
	Total Wages	$ 2958.93
Expendable Office Supplies		50.00
Developing and Printing Film		50.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 3558.93
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		300.00
	Total Supervisory & Publication Costs	$ 552.57
	TOTAL PROJECT COSTS	$12,036.68

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14351

Site name _____ Field number MS-C-15

SW ¼ of the SE ¼ of the NE ¼, Sec. 31, T. 12 (N/S) R. 31 (E/W), County Chaves State NM

Map source 7½ Minute USGS Caudill Ranch Quad - Advance Proof Elevation 4040'

Drainage: primary Pecos River secondary Internal

Location 800 feet west of section line 31|32; 2000 feet south of fence line that seperates sections 30 and 31.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site is flagged 30 M to the NW of the North edge of the dune depression.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune X

Other Large dune blowout with a calichified bottom Area of site diameter 38 meters

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand covering Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's 15-20 sherds 10 lithics Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* Internal X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey X Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi NE Seeps ___

Bedrock pool ___ Permanent? yes Local vegetation patterns Scrub oak on surrounding dune tops, cottonwood and rabbit bush, and sand drop seed grass

Photo: B/W X Color ___

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area.

Field remarks Cultural materials recorded on this site include: 1 chert point base with notches and bifacial working, 1 chert point with bifacial serrations on lateral margins, 15-20 sherds of El Paso Brown, approx. 10 flakes of chert - most non-utilized, some with platforms and cortex. Area ranchers, Graham and Williams, state that all of the dunes (cont. on back)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek.

Excavation requirements: Labor 75 man days Time ___ Equipment ___

CULTURE Jornada (East) / Querecho Phase Phase/Date A.D. 950-1100 /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

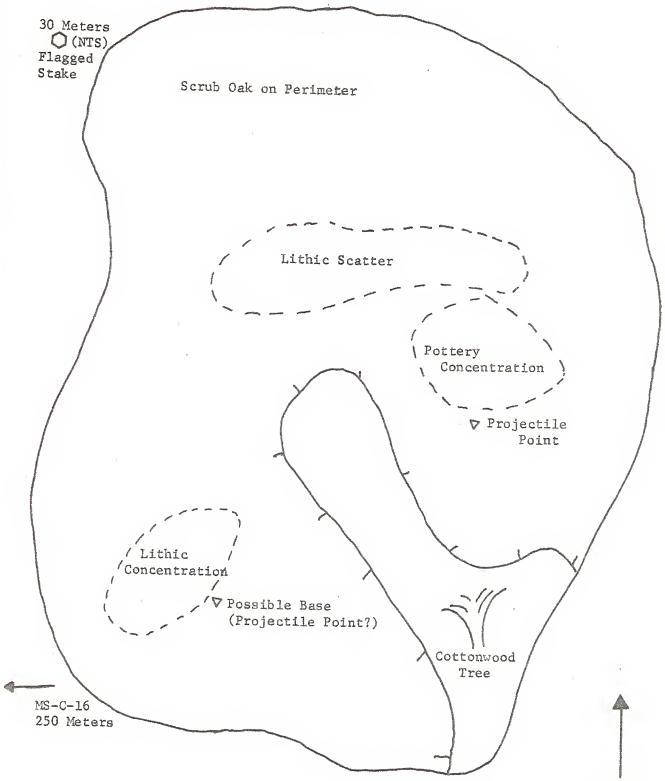
Field recorder Beckett/Southward Date 6/14/76

Lab recorder ___ Date ___

UTM Zone 13
Easting: 606700 Northing: 3677780

Field Remarks Continued:

In the site area have been actively collected over the years.



MS-C-15

6-14-76

Map By F. Geery

MS-C-15

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs		
Field Archaeologist, @ 49.12/day, 15 days		$ 736.80
Archaeological Assistant III, 31.60/day, 60 days		1896.00
	Wages Sub-Total	2632.80
Fringe Benefits @ 13.85%		364.64
University Overhead @ 50%		1316.40
	Total Salaries & Wages	$ 4313.84
Mileage, @ $.20/mile, 3000 miles		600.00
Expendable Field Supplies		150.00
Film		35.00
Per Diem, @ 24.00/day, 75 days		1800.00
	Total Supplies	$ 2585.00
	Total Field Costs	$ 6898.84
Laboratory Costs		
Laboratory Director, @ 49.12/day, 5 days		245.60
Laboratory Assistant, @ 31.60/day, 10 days		316.00
	Wages Sub-Total	561.60
Fringe Benefits @ 13.85%		77.78
University Overhead @ 60%		336.96
	Total Wages	$ 976.34
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1026.34

MS-C-15 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 25 days		$ 1228.00
Typist and Draftsman, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	1702.00
Fringe Benefits @ 13.85%		235.73
University Overhead @ 60%		1021.20
	Total Wages	$ 2958.93
Expendable Office Supplies		50.00
Developing and Printing Film		50.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 3558.93
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 2 Days		145.28
Fringe Benefits @ 13.85%		20.12
University Overhead @ 60%		87.17
Publication Costs		300.00
	Total Supervisory & Publication Costs	$ 552.57
	TOTAL PROJECT COSTS	$12,036.68

NEW MEXICO STATE UNIVERSITY ARCHAEOLOGICAL SURVEY MS-C-1976 Project SITE NO.: L.A. 14352

Site name _____ Field number MS-C-16

SW¼ of the SE¼ of the NE ¼, Sec. 31, T. 12 (N) (S) R. 31 (E) W., County Chaves State NM

Map source 7½ Minute USGS Caudill Ranch Quad - Advance Proof Elevation 4040'

Drainage: primary Pecos River secondary Internal

Location Approximately 300 feet west of site MS-C-15; 2200 feet south of fence line that seperates sections 30 and 31.

Nearest town Caprock, NM Nearest highway NM 172 Accessibility: foot X sedan ___ 4-wh. dr. X backhoe ___

Ownership Bureau of Land Management - Roswell District

Informant _____

Stake location This site was flagged 50 meters east of the center of the site.

SITUATION *(check ✓)*: Valley bottom ___ Bench ___ Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune Active X

Other Located in a series of large dune blowouts Area of site N-S 120 M; E-W 190 M

FEATURES *(Indicate number)*: Pit houses ___ Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* ___ Hearths ___ Burials ___ Sherd/Chipping area ___ Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: I-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered ___ Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure ___

Nature & depth of fill Shallow blow sand with a calichified bottom Est. Wall height ___ Stratified? Unknown

Condition: Undisturbed ___ Eroded X Pot-hunted ___ Pottery/Artifact abundance: 10's (100's) 1000's sherds and some lithics Modern structures ___

Surface: Level ___ Uneven X Slopes to *(direction)* ~~Internal~~ X Surface deposits: Alluvium ___ Colluvium ___ Aeolian X Talus ___

Residual ___ Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other ___

Local rock outcrops: Sandstone ___ Limestone X Shale ___ Caliche X Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)*: ___

Water *(distance & direction)*: River 30 mi W Arroyo ___ Confluence ___ Spring 3 mi NE Seeps ___

Bedrock pool ___ Permanent? Yes Local vegetation patterns Shin oak, sand drop seed grass and soap tree yucca on the surrounding dune tops, and cottonwood and tamarask trees as well as the grasses in the dune blowout bottom

Other resources Appears to be a seasonal campsite for the gathering of acorns (shin oak) - a natural food source in the area. Photo: B/W X Color ___

Field remarks Cultural materials recorded on this site include: Sherds in the 100's of El Paso Brwn., Chupadero and Roswell Brwn.; 1 sandstone bifacial mano - one-handed; 1 chert core; 1 chert flake with a platform and cortex - has unifacial retouch on the right lateral margin of the dorsal side - this flake had been utilized; 1 microflake with retouch (cont.)

References Mescalero Sands Archaeological Resource Inventory - August 1975; Jornada Branch of the Mogollon, Lehmer; Proposed Extension of the Jornada Branch of the Mogollon, Corley; A Prehistoric Sequence in the Middle Pecos Valley, Jelinek. Chert

Excavation requirements. Labor 100 man days Time ___ Equipment ___

CULTURE Jornada East /Querecho Phase/Date AD 950-1100 /

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

Field recorder Beckett/Southward Date 6/14/76

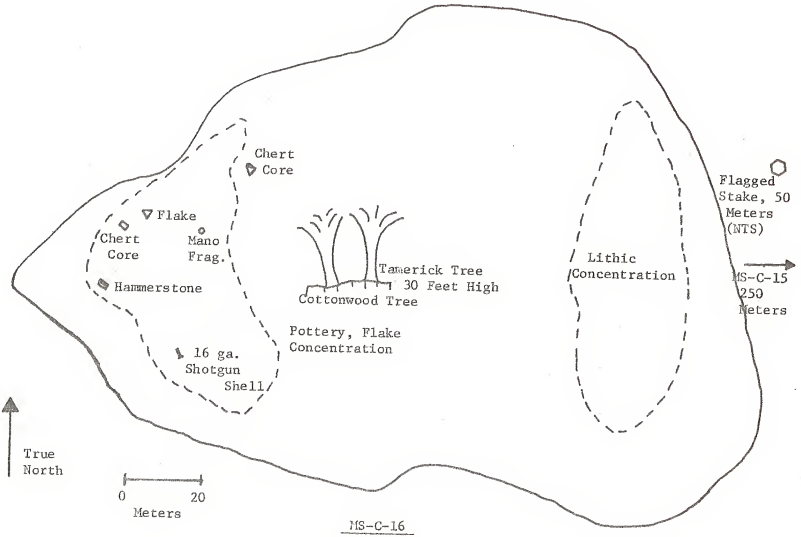
Lab. recorder ___ Date ___

UTM Zone 13
Easting: 606600 Northing: 3677720

Field Remarks Continued:

and use; 1 hammering/battering stone of course quartz sandstone that has some grinding on one side; scatter of lithics on the east side of the blowout which are mostly chert, with no use or retouch; and an abundance of Caprock rock that was very possibly fireburned. There was 1 mano fragment of sandstone - bifacially ground - found 30 meters east of the site center - 5cm x 7cm x 3½cm.

Area ranchers, Graham and Williams, state that all of the dunes in the site area have been actively collected over the years.



MS-C-16

6-14-76

Map By F. Geery

MS-C-16

ESTIMATED BUDGET

The costs detailed below are estimated collection and excavation costs. The costs are based on July 1976, salaries and material costs.

Field Costs

Field Archaeologist, @ 49.12/day, 20 days		$ 982.40
Archaeological Assistant III, @ 31.60/day, 80 days		2528.00
	Wages Sub-Total	3510.40
Fringe Benefits @ 13.85%		486.19
University Overhead @ 50%		1755.20
	Total Salaries & Wages	$ 5751.79
Mileage, @ $.20/mile, 4000 miles		800.00
Expendable Field Supplies		175.00
Film		50.00
Per Diem, @ 24.00/day, 100 days		2400.00
	Total Supplies	$ 3425.00
	Total Field Costs	$ 9176.79

Laboratory Costs

Laboratory Director, @ 49.12/day, 10 days		491.20
Laboratory Assistant, @ 31.60/day, 15 days		474.00
	Wages Sub-Total	965.20
Fringe Benefits @ 13.85%		133.68
University Overhead @ 60%		579.12
	Total Wages	$ 1678.00
Expendable Supplies		50.00
	Total Laboratory Costs	$ 1728.00

MS-C-16 (Con't)

Interpretation and Writing Costs		
Archaeologist, @ 49.12/day, 30 days		$ 1473.60
Typist and Draftsman, @ 31.60/day, 20 days		632.00
	Wages Sub-Total	2105.60
Fringe Benefits @ 13.85%		291.63
University Overhead @ 60%		1263.36
	Total Wages	$ 3660.59
Expendable Office Supplies		100.00
Developing and Printing Film		50.00
Palynology, C-14, etc.		500.00
Computer Time (Provided by the Department)		- 0 -
	Total Interpretation & Writing Costs	$ 4310.59
Supervisory and Publication Costs		
Principal Investigator, @ 72.64/day, 3 days		217.92
Fringe Benefits @ 13.85%		30.18
University Overhead @ 60%		130.75
Publication Costs		300.00
	Total Supervisory & Publication Costs	$ 678.85
	TOTAL PROJECT COSTS	$15,894.23

COLLECTIONS

The Bureau of Land Management Contract YA-510-PH6-94 stated: Collection of artifacts ahall be limited to projectile points and whole ceramic vessels. This is in agreement with the goals of the survey since inventory and minimum surface disturbance were the final goals.

A total of seven artifacts were brought back to the New Mexico State University Museum. Six were definately projectile points and one is either the base of a tang knife or a projectile point. The last artifact, when collected in the field, was assumed to be a broken point; however, upon final analysis it appears to be a broken tang knife.

Projectile Point Site MS-C-7b (LA 14343)

A gray banded chert point, straight base, expanding stem, and re-sharpened.

Length: 22mm (resharpened); Width: 19mm; thickness: 6mm; neck width: 14mm.

Cultural Affiliation: Unknown, possible late Archaic. The neck width and style confirm to those that Henderson lists as late Archaic in the Brantly Reservior area (Henderson 1976:45).

Projectile Point Site MS-C-8 (LA 14344)

A dark gray chert point, straight base, large wide corner tangs and base notched.

Length: 34mm (broken); Width: 39mm; thickness: 4.5mm; neck width: 4.5mm.

Cultural Affiliation: Unknown

MS-C-7B

MS-C-8

MS-C-10

MS-C-15

MS-C-15

ISOLATED

ISOLATED

Projectile Point Site MS-C-10 (LA 14346)

A very fine-grained light tan quartzite point, convex base, corner notched and expanding base.

Length: 37mm; Width: 26mm; Thickness: 6mm; Neck Width: 14mm.

Cultural Affiliation: The point was in a blowout adjacent and north of the site. The site is tentively assigned to the Querecho Phase of the Eastern Branch of the Mogollon. The point is very similar to one that Kelley (1968:456) reports as a dart point in the Bonnell Site.

Projectile Point Site MS-C-15 (LA 14346)

A chert point manufactured out of a flake, contracting stem, with bifacial serrations on the lateral margins.

Length: 31mm; Width: 9mm; Thickness: 5mm; Neck Width: 4mm.

Cultural Affiliation: The arrow point was located within a site that is assigned to the Querecho Phase of the Eastern Branch of the Jornada Mogollon.

Tang Knife Site MS-C-15 (LA 14346)

A chert tang knife, both sides and part of the base are broken off. One corner notch is still intact. The portion of an original side that is still intact is unifacially flaked.

Length: 25mm (broken both ends); Width: 20mm (broken); Thickness: 5.5mm; Neck Width: 8mm.

Cultural Affiliation: The fragment was located within a site that is assigned to the Querecho Phase of the Eastern Branch of the Jornada Mogollon. Mera (1938:22) describes several sites and collections in which these are found.

Projectile Point: Isolated

A very fine-grained quartzite point, with a contracting stem.

Length: 37mm (broken); Width: 21mm; Thickness: 6mm; Neck Width: 13mm.

Cultural Affiliation: Unknown. The point is similar to the Gary points found in the Pecos River Focus in southwest Texas. The point is also similar to the Augustin points found in the Cochise Culture to the west. It is reasonable to assign it to the Archaic based on the style of the point.

Projectile Point: Isolated

A light tan mottled chert point, broken base, with parallel sides on the base. The tip is bifacially flaked and serrated.

Length: 37mm (base slightly broken); Width: 17mm; Thickness: 5mm; Neck Width: 15mm.

Cultural Affiliation: Unknown, but the point is known as a Maljamar point and appears to fall into the Archaic. Calvin Smith has written two articles about the point distributions in southeastern New Mexico (see Bibliography).

Mastodon Remains in Site MS-C-9

One Tuber Calcis of a right Calcaneum was collected after photographing it in place. No excavation was required as it was situated on top of a hardpan surface. Dr. Harris of the University of Texas at El Paso identifed the bone. He stated that he was 80% sure it was a Mastodon Tuber Calcis of a right Calcaneum.

There were other fragments of bone imbedded in the hardpan but none seemed to be in the state of preservation as the one collected on top of the hardpan.

There were lithics scattered about but all were lying on the surface of the hardpan and none seemed to be in direct association with the remains of the Mastodon. The lithics (no diagnostic artifacts) seemed to fit those found on Archaic sites. Careful examination did not indicate any lithic material eroding out of the hardpan but they seemed to be coming out of the lower part of a nearby dune as it was being deflated.

TABLES I and II

The following tables have several categories that are not utilized, because the author decided to use the same categories as in the first Mescalero Sands Project so that future researchers utilizing both reports would be able to cross reference the various categories.

The sherd collections are probably skewed. These areas have been intensively collected in the past by local residents. Very few painted sherds were in evidence during the survey. These would probably be the first ones collected from the sites.

The presence of painted ceramics and trade sherds could change the phase designations assigned to some of the sites which have nothing visible on the surface except the local brownwares at present.

TABLE I

MT.SCALERO SANDS - LITHICS, VEGETATION, CULTURE

	MS-C-1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Points				?			X	X		?	X				X	
Knives																
Choppers								X								
Scrapers						X	X	X	X			X				
Manos				X	X	X						X		X		X
Metates	X	X	X				X			X	X	X				
Utilized Flakes	X		X	X	X	X	X	X	X		X	X	X		X	X
Retouched Flakes	X		X	X	X	X	X	X			X	X			X	X
Waste Flakes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Other Artifacts	X	X	X	X		X	X		X		X		X			X
Features		X														
Bone (see Appendix)				X	X		X									
Shin-oak	X	X									X	X	X	X	X	X
Prickly Pear													X			
Yucca	X	X									X	X	X	X		X
Mesquite	X															
Cottonwood			X	X	X	X			X						X	X
Saltbush	X	X														
Bunch Grass																
Other (see site form)	X	X	X	X	X	X			X	X	X	X	X	X	X	X
Early Man																
Archaic									?							
Quercho Phase		X								X	X	X	X	X	X	X
Maljamar Phase										X						
Ochoa Phase																
Apache (poss. Commanche)																
Historic (debris)																
Unknown	X		X	X	X	X	X	X								

TABLE II

MESCALERO SANDS - CERAMICS

	MS-C-1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ochoa Brn																
Roswell Brn														X		X
El Paso Brn		X									X	X	X	X	X	X
Jornada Brn												X		X		
Alma Plain																
Jornada Blchr																
El Paso Poly																
Jornada Poly																
Chupadero B/W										X						X
Tularosa B/W																
Mangus B/W																
Three Rivers R/T																
Corregated																
Unidentified																

The Environment and its Exploitation

The terrain in the Intensive Survey area fell predominately into two different zones: 1) active dune lands that are barren or nearly barren. These dunes may reach 20 meters in height, and some may have cottonwood trees growing near the base of the dunes. In a few instances cottonwood trees have been covered by these active dunes. 2) low stabilized dune areas that are covered by vegetation and show little evidence of recent deflation or buildup.

The terrain in the Extensive Survey area comprises three essentially different land forms. In addition to the two forms referred to above there is a third type, 3) very high dunes that have vegetation cover and are somewhat stabilized.

The most notable changes in the area ecology since aboriginal occupation are the extinction of the buffalo from the Llano Estacado and its vicinity and the lowering of the water table due to the number of water wells drilled by the area ranchers.

Active Dunes

The active dune lands are nearly barren or barren dunes that are continuely shifting their geographical location usually within a localized geographical area. Vegetation, where it occurs, is generally one or more of the following flora: Cottonwood trees (very common); Sand dropseed (common); Morning glory (common); Shinnery oak (less common); yucca (rare).

The sites located in the active dune areas are generally found on the bottom of large blowouts. The sites also seem to be deflated and

part of a floating surface. Interpretation of most of these is made difficult by the fact that the diagnostic artifacts have been previously collected.

These sites seem to have been surface hunted for years due to the ease in which artifacts can be seen on the smooth sand surfaces. Most of the Archaic and what are perhaps Apache/Commanche occupations of the area seem to turn up in these active dune areas.

Low Stabilized Dunes

The low stabilized dune areas are generally covered by heavy vegetation, and show little evidence of recent deflation or buildup. The most common plants in the survey area are Shinnery oak (very common, primary covering); Yucca (very common); Rabbitbrush (common); Broom snakeweed (common); Prickly pear (less common) and Cottonwood trees (very rare).

Sites generally are near the surface in shallow blowouts suggesting that the area and its dune activity has been relatively stable since A.D. 950. These areas ordinarily do not yield lithic sites, but do produce a high number of small ceramic sites that normally produce local brownwares.

High Stabilized Dunes

The high stabilized dune areas are generally covered by heavy vegetation, and whow moderate evidence of recent deflation or buildup. Vegetation generally consists of Shinnery oak (very common, primary covering); Yucca (very common); Rabbitbrush (common); Broom snakeweed (common); Prickly Pear (less common) and Cottonwood trees (sparse).

Many of these high dunes have sites that appear to be eroding out near the base of the dunes, suggesting that since A.D. 1300 there has been active dune building in the area. These areas ordinarily do not yield lithic sites, but do produce a high number of ceramic sites that normally produce local brownwares.

Seasonal Gathering

Most of the evidence from the ceramic sites would suggest that the Mescalero Sands area was seasonally exploited in the late summer and early fall when the shinnery oak, yucca, prickly pear and, to a lesser extent, the mesquite became mature. This suggestion raises two questions. First, was the vegetation of the area the same in the prehistoric past as it is now and, second, were the prehistoric peoples using these foods. There is better evidence for the first question.

Shinnery oak has been recorded in the area for the last 100 years on the Township Plat Maps (York and Dick-Peddie 1969:164). In addition, the pollen profile taken in Wolf Ranch Canyon west of Roswell, Chaves County, New Mexico by F.E. Green (see Wendorf 1961:67) indicates that shinnery oak (Quercus harvardii) is continuously in the pollen profile in a relatively stable manner to a depth of 14 feet. A radiocarbon date of 2850 ± 100 B.P. was assigned to the 9.5 foot level (Wendorf 1961:65). Thus, at least part of the contemporary plant community was present at a relatively early date.

The archaeological sites present in the northern portion of the Mescalero Sands (e.g. MS-A-1, MS-B-6, and MS-B-26, Beckett 1975) are in the upper portion of the dunes in shallow blowouts. These dunes appear to have been stabilized for a long period of time. If a previous plant

community had been replaced by the present one, there should have been evidence in the dunes such as deflation, resulting in a downward movement of the artifacts and a mixing of cultural debris. Evidence from the Mescalero Sands does not indicate that this has happened.

During the latter part of July the shinnery oak (Quercus harvardii) was approaching maturity, even though the shrubs rarely reach 70 cm. in height, they were producing very large acorns.

> The acorn is the largest borne by any species in New Mexico, the cup hemispheric, the upper scales slightly or not at all thickened, acuminate, the lower ones somewhat thickened; the acorn 20mm. long and three-fourths as broad, obtuse. (Wooton and Standley 1915:172)

Additionally, the prickly pear fruit and mesquite beans were approaching maturity. The wide variety and great abundance of natural foods available during this period in Mescalero Sands, along with the number of aboriginal camp sites, would tend to suggest that the area would be exploited from late July until September, varing somewhat from year to year with climatic conditions.

Most of the archaeological sites fell into an area that had an abundance of shinnery oak. The sites usually had a high percentage of grinding and food processing tools along with ceramics. None of the sites in the survey areas appeared to have structures associated with them. They were all located in blowouts and appear to be camp sites. The tool assemblage and the temporary habitation of the area would tend to indicate that the Mescalero Sands was being utilized by the aboriginal inhabitants of the area as a seasonal gathering site.

A short distance to the south, Mera also concludes that the sites found in similar dune areas were camp sites. He also could not find evidence of structures in these areas.

> Although some time was spent in an effort to find traces of house structures or other kinds of shelters, nothing of this nature could be determined. (Mera 1938:14).

There are a few pueblos found west of the Pecos River in southeastern New Mexico. The Lea County Archaeological Society excavated the Merchant site, and E.B. Collins reported on one excavated pueblo (The Salt Cedar Site) in his M.A. Thesis (Collins 1968). In both instances, acorns were in the archaeological record, charred acorns from the Merchant Site (Leslie 1965:28) and pollen from the Salt Cedar Site (Collins 1968:45).

Both of these sites have an abundance of milling stones and ceramics and both fall into Corley's Ochoa Phase of his "Proposed Eastern Extension of the Jornada Branch of the Mogollon". It is probably the inhabitants from villages similar to the Merchant Site or the Salt Cedar Site that occupied some of these camp sites found in the Mescalero Sands Area. Puebloan peoples living along the Pecos River and its tributaries would be the most logical inhabitants of the camp sites found in the Mescalero Sands.

Bloom Mound is a pueblo close to the junction of the Hondo and Pecos Rivers. Kelly (Kelly 1966:577) suggests that the location of Bloom Mound gave the residents an opportunity to engage in trade westward with other sedentary Southwesterners and eastward to the Plains. The concave base, side notched points that are characteristic of the Bloom Mound examples are found in several local collections from Mescalero Sands.

Another possibility is that the dune area itself was being used for corn agriculture. This has been suggested for parts of the Llano Estacado in Texas that contain sand dunes and pottery:

> We have here the curious circumstance of a large, sandy tract in the middle of the Llano Estacado, which, despite a somewhat lower rainfall than to the east, provided a friable soil which retained moisture and could well have supported crops of Indian corn in most years under present conditions. This is particularly interesting in view of the rather common occurance of camp sites bearing Puebloan pottery types in the sandhills of this part of Texas (Krieger 1946:77).

If the occupants were planting, harvesting and preparing corn on these sites, the tool assemblage would be essentially the same as for acorn and mesquite bean harvesting. The main weakness of the corn horticulture hypothesis might be the lack of structures in the area. However, permanent structures would not be necessary for a growing-season occupation.

It is possible that a crop of corn could be planted, left to the elements and harvested along with the exploitation of the local flora in the fall in the manner of the historic Papago, however, evidence points away from this because of the lack of maize either in perishables or in the pollen record from sites east of the Pecos.

It must be noted that although mesquite was available in the vicinity of the sites it was not abundant. Most of the areas that had mesquite in abundance fell outside of the survey area; generally they were located one to two miles east of the survey areas, closer to the caprock and its water runoff.

In some of the sites where only a few scattered lithics are available it is almost impossible to tell if the site is Archaic or Apache. Both cultures probably were utilizing the same natural foods. Cordero's description of the Apache in 1796 gives us a fairly good guide as to what natural resources the Apache were utilizing:

> "So far as game is concerned, it is the burro, deer, antelope, bear, wild pig, panther (mountain lion), and porcupine. The common fruits are the tuna, the datil, the pitaya (these three are the fruit of the Prickly Pear, Yucca and the Saguaro), the acorn, and the pinon; but their principal deliciacies are the mescal. There are various kinds taken from the hearts of the maguey, sotol, palmilla and lechuguilla; and it is used by cooking it with a slow fire in a subterranean fireplace (Mescal pit), until it acquires a certain degree of sweetness and piquancy. They likewise make a sort of grits of pinon of the seed of hay or grass which they reap with much care in its season, although in small quantities (since they are not by nature farmers); they likewise raise some little corn, squash, beans, and tobacco, which the land produces more on account of its fertility than for the work which is expended in its cultivation. (Matson and Schroeder 1957:338-0339).

Lithic Procurement

Many of the stone artifacts were made of locally obtained materials from the nearby caprock. Ogallala Chert (a gray chert found abundantly in the form of stream-rounded conglomerates of the Ogallala formation, Tunnell and Hughes 1955:67) was utilized extensively throughout the area. A form of local petrified wood, which saw limited usage, is also available from the caprock in at least one locality. A fine-grained quartzite (source unknown) was also utilized in considerable quantities.

In conclusion, the archaeological data obtained from the second Mescalero Sands Survey reinforces some of the hypotheses suggested during the first survey, and has provided additional information to the prehistory of the area.

1) Archaeological evidence indicates that some parts of the present dune areas have been relatively stable since at least A.D. 950, while other areas have had active dune buildup and deflation taking place.

2) Shinnery oak (Quercus harvardii), a foodstuff that was utilized by the Apaches and by the Querecho, Maljamar and Ochoa Phases of the Jornada Mogollon, was present in the pollen record in Chaves County by at

least 2,850 years ago. It also appears in the archaeological record in at least two village sites dating between A.D. 1000 and 1500.

3) There is evidence that strongly suggesting that the Mescalero Sands area was used as a late summer-early fall gathering area when the shinnery oak, yucca, prickly pear and the mesquite (to a lesser degree) were maturing since at least A.D. 950, or the start of the Querecho Phase.

4) The number of archaeological sites appearing in the Mescalero Sands between A.D. 950-1450 helps to reinforce a theory of postulated heavy summer rainfalls occuring about A.D. 1000-1400 in the southwest suggested by many palynologists, as there would be plenty of water available from water runoff and playa capture to assure individual daily intake needs during the best gathering period.

5) The area is suitable for limited maize horticulture and may have been used for this purpose in the past by a seasonal population, although evidence seems to point away from this.

6) Corley's proposed extension of Lehmer's "Jornada Branch of the Mogollon" appears to be valid (see Appendix A). Jelenik's "Middle Pecos Valley" sequence to the north seems to be a fringe area where there is overlap between the two. This was the case in the Llano Estacado, where the pottery on the northern portion was Anasazi and that in the southern portion was Mogollon (Honea 1973).

7) Corn is present in the archaeological record from Bloom Mound, a pueblo approximately 14 miles west-southwest of Roswell. The inhabitants of this pueblo and others close to the Pecos River could very easily have gone to the Mescalero Sands for gathering acorns.

8) The major occupation of the Mescalero Sands seems to have been during the Querecho Phase of the Jornada Mogollon. Out of the 62 sites encountered during the surveys, 47 were definitely or provisionally assigned to the Querecho Phase. A date of A.D. 950-1100 was suggested by Corley for the Querecho Phase.

9) In all probability the Apache were utilizing the Mescalero Dunes and exploiting the natural foodstuffs that were available there. Cordero's description of the use of acorns, prickly pear and yucca by the Apache strongly suggests that they would have utilized the area as there was so much of these natural foods available.

10) Most of the raw material utilized for the manufacture of lithic artifacts seems to have been from local sources. Ogallala chert, was the predominant material utilized in tool manufacture. In addition, a substantial amount of quartzite was being utilized (source unknown), and a local petrified wood coming from at least one local caprock source saw limited usage.

11) More work is needed in the area to distinguish between Archaic and Apache sites when there are no diagnostic artifacts present. Some of these sites had large quantities of small bone fragments left on them, suggesting that hunting was the main object of occupation. Generally speaking , sites with abundant bone debris had little or no pottery in association, suggesting that they were Archaic or Apache. The possibility that they were pueblo hunting parties should not be ruled out.

12) No Early Man sites were encountered on either survey, probably because the area was a pluvial lake during the moister part of the late pleistocene. Thus, we would not expect to find evidence in the dune areas that were surveyed. There is no doubt that cultural debris from Early Man would be found in the surrounding geographical area, especially near the cap rock, but these areas were outside of the Mescalero Sands survey area.

APPENDIX A

A Brief Overview of the Prehistory

of Southeastern New Mexico

Archaeologically speaking, southeastern New Mexico has been one of the least understood parts of the state, possibly because there are few spectacular ruins or monuments. Most of the work has been done on the early big game hunters who inhabited this region from about 11,500 B.P. to the advent of the Altithermal about 6,000 B.P. (Wendorf.1961: 123).

The archaeological summary below is organized on the basis of the stage system which is generally accepted by American archaeologists (see Willey and Phillips 1958).

Lithic Stage

The Lithic Stage dates from late glacial and early postglacial times. It is predominately a hunting stage exploiting large migratory herbivores, most of which are now extinct. It is also likely that these hunters utilized and expolited the vegetal resource available during their quest for these herbivores.

Family structure for the period probably was organized around the nuclear family, probably a highly mobile nomadic band which would be better for their quest of game animals and foraging.

> We would say then, for purposes of definition, that the Lithic is pre-eminently a hunting stage, though other economic patterns were certainly present whose local dominance, under certain conditions is not precluded....
>
> A small-scale kinship type of organization is postulated, but within this generalization, great variability and a high degree of specialization must be allowed for. The data do not support the view that because Lithic cultures are relatively simple they are also uniform (Willey and Phillips 1958:41).

Llano Complex

The earliest human occupation in southeastern New Mexico seems to have been the hunters of the Llano Complex, which includes the Clovis And Folsom traditions. The Llano Complex was proposed by E.H. Sellards (Sellards 1952). The name is derived from the "Llano Estacado", a plain in eastern New Mexico and west Texas where many of the type sites are found. Multiple-component sites (those with artifacts from different cultural levels and temporal horizons) are rare in the archaeological record. southeastern New Mexico is lucky enough to have one of these type sites, Blackwater Draw.

Blackwater Draw has provided a basic sequence and dating for many of the artifacts found in the Lithic Stage. The earliest culture in the Llano Complex is the Clovis Culture. There are three(3) radiocarbon dates for the Clovis occupation at Blackwater Draw. They range from 11,040 $\pm$ 500 to 11,630 $\pm$ 400 B.P. (Before Present). All of these dated fall within the accepted 9,000 to 9,800 B.C. that all Clovis sites, to present, have been dated.

The tool assemblage for the Clovis Culture is adapted primarily to big game hunting. Their projectile points and butchering tools have been found in site with mammoth and extinct forms of bison. Clovis points are generally fluted although many specimens have such short flutes that they appear to be basally thinned. The tool assemblage can best be described by Agogino in his 1968 report to the National Geographic Society.

> With the exception of points, most of the other lithic artifacts from the Llano horizon were unifacial in style.
>
> The majority of scrapers were side-scrapers, although dual-purpose scrapers were common. These include spokeshave scrapers, graver scrapers, or combination side and end scrapers. Scrapers made as single-purpose tools were generally constructed from prepared blades, broken into several segments, each segment made into individual end scrapers. Breakage, which was common toward the dorsal section of these end scrapers, suggests that they were hafted on wooden or bone handles. Roughly two-thirds of all knives are unifacial knives, and it is frequently difficult to distinguish some unifacial knives from side scrapers; in some instances they probably served both functions. Biface tools show little edge retouch, and all flaking, regardless of the artifact, seems to be pressure flaked in manufacture (Agogino 1968:4).

The Folsom tradition follows the Clovis in the Llano Complex. Chronologically, Folsom dates between 9,000 and 8,000 B.C. (Haynes and Agogino 1966). The Folsom economy is based on the hunting of large herbivores, especially an extinct species of bison.

The material culture inventory includes diagnostic fluted points and scrapers, including end-scrapers, thumbnail scrapers, turtleback scrapers and spokeshaves (a small concave scraper). In addition, leaf-shaped knives, core choppers and bone tools such as awls and needles are also part of the Folsom assemblage.

These tools, along with the bison kill sites where these artifacts are found, suggest a native population highly dependent upon the hunting of big game.

Plano Complex

The Plano Complex is the last of the so called Early Man horizons. These cultures were once collectively called the Portales Horizon at the Blackwater Draw locality. The name Plano was suggested by Dr. James Hester in 1962 when he felt that the artifacts within the Portales horizon

might be a series of separate cultures. This hypothesis has been substantiated by Agogino. While the Plano cultures at the Blackwater Draw site have not been fully defined, the cultures just underlying the Archaic from the most recent to the oldest are Frederick or Angostura, dated at 7,000 years old; Cody, roughly 8,000 years old; and the oldest of the post-Folsom cultures, Agate Basin at roughly 9,500 years old (Agogino 1968:6).

Agate Basin - - 7,500 B.C.

The type site was excavated by Frank H.H. Roberts, Jr. (1943). Little is known about the people who made the distinctive projectile points known as Agate Basin points. It is known that they hunted bison, as many were present in the original excavation. Wormington describes the points as: "long and slender with parallel or slightly convex sides. They have basal grinding.... the bases are straight or convex; the flaking is always of the horizontal type; there is a finer marginal retouch, and the basal thinning is usually absent." (Wormington 1964:141)

Cody - - 6,000 B.C.

Although the type site is located in Wyoming, many of the artifact types are found in southeastern New Mexico.

> No detailed description of the other artifacts which go to make up the Cody Cpmplex has been published, but they include scrapers, knives, engraving tools, perforators, choppers, pounders, and rubbing stones. There is one distinctive artifact which can serve as a diagnostic for the complex even though it is unaccompanied by the characteristic projectile points. This is a form of knife which has a transverse blade and is usually stemmed on one side. It has been informally called a Cody knife. (Wormington 1964:128).

No evidence of shelters or dwellings has been found in these early horizons. The Horner site has provided some information as to occupation areas and their utilization.

> The site (Horner Site) has not yielded evidence of dwellings nor of prepared hearths. There are, however, some burned areas where fires had been built. Of particular interest is the finding of shallow linearly arranged pits dug into the gravel of the terrace. They are from twelve to thirty inches across at the top, narrower at the bottom, and about a foot deep. Perhaps they were used for storage (Wormington 1964:128).

Angostura - - 5,000 B.C.

The type site is the Ray Long Site, south of Hot Springs, South Dakota. No bones were found in association with the site. The site was destroyed by the filling of the Angostura Reservoir. Wheeler (1954) suggested the name Angostura for the points. Wormington describes them:

> These are long, slender, and lanceolate, and taper to a narrow base which may be straight or concave. The points are quite thin. The flaking is fine, and the flake scars, which are parallel, are ususlly directed obliquely across the face of the blade. (Wormington 1964:140).

These Plano big-game hunters were replaced in southeastern New Mexico by an Archaic tradition at the start of the Altithermal, which marked the advent of a drier climate.

Archaic Stage

The Archaic Stage is a phenomenon of the post-glacial period. Archaic cultures are generally characterized by the hunting of modern species of animals and by a heavy reliance on wild plant foods. Grinding stones and a number of stone tools which seem to have been used for processing vegetable foods came into common usage.

This is probably the least understood period for the region. Professionally surveyed or excavated Archaic sites are almost nonexistent, the exceptions being Rattlesnake Draw and Jelinek's site P5, a late Archaic Site. Jelinek states that the artifacts on a site on the Llano Estacado and the surface collection made by Jim Warnica, south of Ft. Sumner, would tend to indicate a possibility of native San Jose points for the area (Jelinek 1967:141). Excavations by Irwin-Williams northwest of Albuquerque in the late 1960's indicate that the San Jose materials are found in a more northwestern geographical region (Irwin-Williams 1970: personal communication).

Calvin Smith has twice reported on a distinctive point type known as the "Maljamar Point" (Smith 1972:33-35; 1974:20-25). He assigns these to the Hueco Phase, a late variant of the Cochise Culture. An example of this point type was recorded by a NMSU survey near Artesia, New Mexico in January 1974. It would seem to be a localized distribution and no doubt indicates a late Archaic phase. There is some question as to whether the Cochise Culture underlies the ceramic periods in southeastern New Mexico.

Lehmer (1948:72) linked the Jornada Branch of the Mogollon to the Coshise Culture. In doing so, he referred to the late Archaic of the Jornada area as the Hueco Phase; a name given originally by E.B. Sayles (1935) and called "Hueco Cave Dweller", a term utilized to distinguish it from the Big Bend and Pecos River Cave Dweller" and all Archaic stages falling into the Trans-Pecos region. Later investigations of the Hueco Phase by C.B. Cosgrove (1947) and Donald J. Lehmer (1948) have supported Sayles' original Hueco designation. Lehmer cited Sayles' "Hueco Cave Dweller" but adds that numerous non-ceramic open sites also appear to be part of the complex (Lehmer 1948:71).

The term "Hueco" is also an unfortunate and cumbersome name as it has been at times misplaced on some Archaic materials found west of the San Andres Mountains which are not necessarily those same types of artifacts found east and south of the San Andres Range, as the name implies. The San Andres Range seems to provide a natural barrier and boundary for the inhabitants of the Jornada area.

The excavations at Fresnal Shelter east of Alamogordo, New Mexico have provided a preliminary basis for comparison with the site material from LA 5529 located northwest of Las Cruces, New Mexico (Beckett 1973). These artifacts, along with surface collections from both the east and west sides of the San Andres Mountain Range, indicated that different projectile point types and artifacts were utilized by these inhabitants, but there is some overlap of the two areas on both sides of the mountain range. The Archaic on the west side of the San Andres Range seems to be predominantly that of the Cochise Culture. Almost all of the Bat Cave point types are evident in surface collections. The east side of the San Andres Range seems to be more closely related to southeastern New Mexico and west Texas materials (Irwin-Williams 1972: personal communication). This would, in effect, explain Lehmer's grouping of the Jornada Branch.

The entire northern section falls east of the San Andres Range and the southern section lies, for the most part, to the west of this north-south mountain chain (see Figure 3).

North	South
San Andres	El Paso
Three Rivers	Dona Ana
Capitan	Mesilla

Hueco (preceramic)

(Lehmer 1948:11)

A two part division should be made for the term, Hueco: (a) the geographical region west of the San Andres which would be equivalent to Lehmer's southern group. This region is predominantly Cochise in origin with typical Chiricahua and San Pedro material occurring in Archaic sites. (b) the geographical region east of the San Andres which would be equivalent to Lehmer's northern group. This material seems to have closer ties with the Archaic material from southeastern New Mexico and west Texas.

Thus, the term "Hueco" should be redefined. The real problem is that some of the sites in which Hueco was defined by Cosgrove and Lehmer are west of the San Andres and the name "Hueco" is taken from the Hueco Basin in Texas, which is in another geographical region, and contains different types of material culture.

In 1960 Jelinek also postulated a Late Archaic Phase termed "Yeso Phase". Later in his 1967 report he states:

> After examining a greater number of ceramic site localities in and around the Pecos Valley, and in other areas of the Southwest, I am now less inclined to treat the collections from this site as a particular assemblage. (Jelinek 1967:141)

The Archaic Stage in southeastern New Mexico appear to be an indigeneous development and not part of the San Jose (Oshara Tradition) or Hueco (Cochise Culture). A systematic study needs to be done to clarify the Archaic Tradition in southeastern New Mexico.

Figure 3 Jornada Area Proposed by Lehmer (Lehmer, 1948:10)

1 La Cueva (excavated by Lehmer)

2 Chavez Cave (excavated by Cosgrove)

Formative Stage

In southeastern New Mexico, the Formative population seems to have developed out of the local Archaic population. This shift to a Formative economy did not happen at the same time in all parts of southeastern New Mexico.

In most areas of the Southwest, the Formative Stage is characterized by the heavy dependence on domesticated plants (and sometimes animals), the presence of structures and the manufacture of pottery. This appears to hold true for sites found west of the Pecos River in southeastern New Mexico. The Bloom Mound site located approximately 14 miles west-southwest of Roswell has produced charred corn (Kelley 1966:594).

The Formative Stage in the extreme southeastern portion of New Mexico exhibits many southwestern traits along with influence from the Plains area. The inhabitants do not utilize agriculture as such but rely on the gathereing of natural foodstuffs and the hunting of the local fauna (i.e. Bision, deer, antelope and rabbit).

Recent investigations in the Mescalero Sands area (Beckett 1975). and in portions of the shinnery belt south indicates that these areas were being exploited for the acorns that the shinnery oak produce. The large number of campsites with no permanent structures along with the large number of grinding implements indicate a seasonal exploitation of the plant community.

Shinnery oak has been recorded in the area for the last 100 years on the Township Plat Maps (York and Dick-Peddie, 1969:164). In addition

the pollen profile taken in Wolf Ranch Canyon west of Roswell, Chaves County, New Mexico, by F. E. Green (see Wendorf 1961:67) indicates that shinnery oak (Quercus harvardii) is continously in the pollen profile in a relatively stable manner to a depth of 14 feet. A radiocarbon date of 2850±100 B. P. was assigned to the 9.5 foot level (Wendorf 1961:65). Thus, at least part of the present plant community was present at a relatively early date.

The sites found east of the Pecos River with pottery and structures have not produced corn or corn pollen. The Merchant Site, excavated by the Lea County Archaeological Society, has produced charred acorns (Leslie 1965:28). The Salt Cedar Site, excavated by Collins, has Quercus in the pollen record for the site (Collins 1968:45). Both sites had a number of milling stones in association with the structures. It is assumed that if they were not processing corn, then they must be processing wild foodstuffs that were found nearby. This would explain the great number of seasonal camp sites located in the shinnery belt.

In this report, the Formative Stage will be broken down into phases proposed by Corley in his Proposed Eastern Extension of the Jornada Branch of the Mogollon (Corley 1965). Corley's proposal is based on Lehmer's Jornada Branch of the Mogollon (Lehmer 1948) which lies farther to the east. Although another professional archaeologist, Jelinek, had proposed a sequence for the Middle Pecos Valley, it does not seem to be the one best suited to the Roswell area.

Anasazi influence does not seem to have reached farther south than Roswell, if that far. Jelinek's surveys in the Middle Pecos Valley seem

to contain materials from both the Anasazi and Mogollon areas, which would seem to suggest that the Middle Pecos area was a fringe area between the two basic cultures. This is further borne out by Honea's observations on pottery from the Llano Estacado. Intrusive pottery seems to be of two traditions: In the southern part of the Llano, it appears to be predominantly of Eastern Mogollon derivation; while to the north it is Eastern Anasazi (Eastern Pueblo) (Honea 1973).

Thus, Corley's proposed extension seems to correct geographically speaking. Whether the area proposed by Lehmer and extended by Corley is Mogollon in origin or is an indigeneous development within southern New Mexico still needs to be clarified. Regardless, the Phases and their associated pottery will still be valid.

The Formative State in southeast New Mexico, (Corley's Eastern Extension of the Jornada Branch of the Mogollon), is sub-divided into three phases: Querecho Phase A. D. 950-1100; Maljamar Phase A. D. 1100-1300; and the Ochoa Phase A. D. 1300-1450.

Querecho Phase A. D. 950-1100

The Querecho Phase appears to be contemporanous with Lehmer's Mesilla and Capitan Phases. Architecture: pithouse. Ceramics: smooth brown and a corrugated pottery. Intrusive Ceramics: El Paso Brown, Jornada Brown, Jornada Red/Brown (Bichrome), Three Rivers Red-on-Terracotta (boldline) and Chupadero Black-on-White.

Maljamar Phase A. D. 1100-1300

The Maljamar Phase is contemporanous with Lehmer's Dona Ana and Three Rivers Phases. Architecture: Lehmer states that "Many of the

sites yielding this ceramic complex show traces of developed surface pueblos," but Jenning's work seems to indicate that pithouses also persisted into this period (Jennings 1940), at least on the eastern periphery (Lehmer 1948:85-86). Ceramics: on pit room sites a smooth brown and a brown corrugated pottery belonged to the pitrooms, while a dark brown indented corrugated pottery belonged to the surface room sites (Corley 1965:31). Intrusive Ceramics: El Paso Brown, El Paso Polychrome, Mimbres Black-on-White, Playas Red, Playas Red Incised, Three Rivers Red-on-Terracotta (fine-lined and bold-lined) and Chupadero Black-on-White.

Ochoa Phase A. D. 1300-1450

The Ochoa Phase appears to be contemporanous with Lehmer's El Paso and San Andres Phases. Architecture: surface houses. Ceramics: dark brown indented corrugated pottery. Intrusive Ceramics: El Paso Polychrome, Three Rivers Red-on-Terracotta (fine-line), Gila Polychrome, Ramos Polychrome, Pecos Glaze I Red and Yellow, Lincoln Black-on-Red. Historical Period A. D. 1582-?.

This period covers the period after the first Spanish expeditions traversed the southeastern part of New Mexico, the Espejo Expedition (1582-1583), did not encounter any Indians (they did see signs of Indians) during their travel through the region in the month of August (Schroeder 1974:147). Pecos Pueblo and Gran Quivira were probably the closest inhabited settlements to the region.

Thus, there is a break or hiatus in the archaeological and historical record in the occupation of the area between A. D. 1450

and October, 1590, when the Castano de Sosa Expedition encountered a group of Indians probably just north of the present New Mexico/Texas border.

> On the 31st of the month, the party encountered a band of Indians who carried their goods loaded on dogs, a thing very marvelous in the eyes of the Spaniards... During the next few days many more Indians were met. These proved, for the most part, to be by no means friendly. (Hull 1916:314)

These groups encountered by the Castano de Sosa Expedition and whose signs were noted by Espejo might have been the forerunners of the Apache Indians who for the next several hundred years were to play havoc with the settled eastern Pueblos, Spanish and later Anglo-American penetrations into the area.

It is known that from 1590 to the time of the Pueblo rebellion of 1680, there was considerable Apache pressure placed on the eastern Pueblo Indians and the Spaniards. Ayeta in 1679 and 1672 implied that Apache pressure and attacks were coming from the southeast and that in 1672 six pueblos were depopulated.

> These pueblos were abandoned a few years prior to the Pueblo Rebellion of 1680, due to the pressures of Apaches from the southeast. It is apparent that the Apaches from the Sierra Blanca expanded their raiding range from the south after the 1650's. By the 1670's they had forced the pueblo people from their homes on the east side of the Manzano Mountains, almost as far north as Albuquerque. (Schroeder 1974:483)

Of the various Apache groups that occupied the southwest, two figure more prominently than any other group in southeastern New Mexico. These are the Mescaleros and the Llaneros and can best be described by Lieutenant Colonel Don Antonio Cordero in his notes about the

Apache Nation composed in 1796. The following is Cordero's description of Mescaleros and the Llaneros which is taken from Matson and Schroeder (1957:354-355).

Mescaleros

> This group dwells, generally speaking, in the mountain ranges near the Pecos River, extending northwards on both banks as far as the Comanche. It uses this locality particularly in the proper season for the buffalo hunt, on which occasions it joins with the plains group which is its neighbor. It proceeds in a like fashion when it undertakes offensive operations against the Spanish establishments, inviting the Faraones to take part in its enterprises. In general it starts out through the Mapimi depression, whether it is casting its glances towards the province of New Vizcaya, or whether it resolves to invade that of Coahuila. They like firearms of which they have some; but they do not on this account give up weapons which are proper and peculiar to them. The number of families which composes this group is small, since they have suffered much from the Comanches, their most bitter enemies, and due to some diminution of which the Spaniards caused them in their old disputes. On the north their boundary is the Comanche country; on the west the Faraon tribe; on the east the Llaneros, and on the south frontier.

Llaneros

> These Indians occupy the plains and sandy places situated between the Pecos River, which they call Tjunchi, and the Colorado which they call Tjuichide. It is a group of some strength, and is divided into three parts, that is today: Natajes, Lipiyanes and Llaneros. They check the Comanches in the continual fights and bloody actions which frequently occur, especially in the season of the buffalo hunts. They attack, although infrequently, the Spanish establishments, uniting themselves for this purpose with the Mescalero and Faraon Apaches, with whom they have a close friendship and alliance, they border to the north on the Comanches; on the west with the Mescaleros; and on the east with Lipanes, on the south with the line of the Spanish presidios.

By late Fall of 1862, over 500 Apaches were in custody at

Fort Sumner. These Apaches were soon joined at the Bosque Redondo Reservation by Navajos who Col. Carson had rounded up in northwestern New Mexico. The object was to make sedentary farmers out of these nomads. The other reason was to provide a buffer zone as the Apaches and Comanches were old enemies; thus relieving Comanche pressure on eastern New Mexico.

A series of crop failures which produced famine on the Reservation was such that: "...all of the Mescaleros, but nine who were sick, left Bosque Redondo as a group on the night of November 3, 1865" (Schroeder 1974:62-563). They returned to their old ways and resumed raiding. In May 1873, a reservation was set up for them in the Sacramento and White mountains. Although the boundaries have changed somewhat, the Mescaleros have been on the reservation since then; the only exceptions being in the mid-1870's when a few renegades were still making sporadic raids.

APPENDIX B

A bibliography of past research for Southeastern New Mexico.

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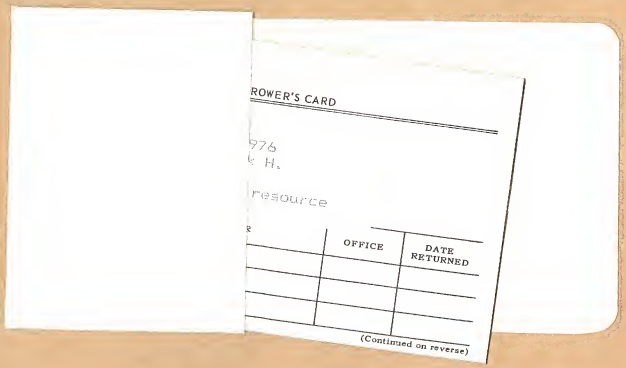
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